

**GOVERNMENT REPORTS**  
**REGARDING**  
**NAVY USES OF PCBs**  
**AND**  
**SHIPYARD WASTE STREAMS**



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TSCA Public Docket Office (TS-793)  
Office of Toxic Substances  
Room NE G004  
Environmental Protection Agency  
401 M St., SW  
Washington, DC 20460

Attn: OPTS-66009

Gentlemen:

This letter provides the Navy's response to your Advance Notice of Proposed Rulemaking (ANPRM) published 10 June 1991 in the Federal Register regarding the regulation of Polychlorinated Biphenyls (PCBs) under the Toxic Substances Control Act (TSCA). The point of contact within the Navy is Dr. Kurt Riegel. He may be reached at (703) 602-3594, and will be available to answer any questions on this response.

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Encl:

(1) Navy Comments on the Environmental Protection Agency's  
Advanced Notice of Proposed Rulemaking on Polychlorinated  
Biphenyls

ENCLOSURE(1) 49

Navy Comments on the Environmental Protection Agency's Advanced Notice of Proposed Rulemaking on Polychlorinated Biphenyls

**I. EXECUTIVE SUMMARY.**

Our comments are provided in six sections: an executive summary; introductory remarks; background on the Navy's experience with the Polychlorinated Biphenyl (PCB) regulations; issues and recommendations of primary concern to the Navy; other issues and recommendations; and concluding remarks. There are four groups of issues of primary concern to the Navy.

First, the Navy is concerned that the existing regulations are unduly burdensome with regard to many common uses of "nonliquid, bound PCBs," which are PCBs inextricably bound in a solid matrix of fabric, rubber, plastic or similar material. Many of these uses were presumably not known to the Environmental Protection Agency (EPA) or considered at the time the regulations were written. Consequently, the existing regulations, which are generally appropriate for liquid PCBs such as dielectric fluids, are not appropriate for these other uses. The Navy recommends that a new Subpart be added to the regulations, dealing specifically with use and disposal of "nonliquid, bound PCBs."

Second, the Navy is concerned that the existing regulations do not adequately address the many issues related to PCB surface contamination, except contamination related to a known recent spill of liquid PCBs. For example, the existing regulations are difficult to apply in situations where the age or the source of PCB surface contamination is unknown. The regulations are also difficult to apply when the existence of PCB surface contamination is known, but the exact locations, contamination levels, and extent of the contamination are unknown, and the surface area in question is extremely large. The Navy recommends that a new Subpart be added to the regulations, dealing specifically with PCB surface contamination from sources other than a known recent spill of liquid PCBs.

Third, the Navy is concerned that the existing regulations for storage, packaging, and transportation of PCBs, while generally appropriate for liquid PCBs, are not appropriate for items such as electrical cable containing nonliquid, bound PCBs, or for large pieces of scrap metal with relatively low levels of fixed PCB surface contamination. The Navy recommends that the existing regulations be modified to provide more reasonable requirements for storage, packaging, and transportation of these types of items.

Fourth, the Navy is concerned that the existing regulations, if interpreted literally, unduly restrict the transfer of ownership of older ships and industrial facilities. The Navy recommends that the existing regulations be modified to clearly allow this type of transfer.

## II. INTRODUCTORY REMARKS.

The Navy welcomes this opportunity to comment on potential changes to the current PCB regulations at 40 C.F.R. Part 761. Over the last two years, we have been confronted with a number of complex PCB use and disposal issues and, as a consequence, have been required to interpret the PCB regulations both independently and with the assistance of EPA headquarters and the EPA regional offices. At times, we have found the regulations unclear and difficult to apply. Overall, we believe that, because the regulations were written with a limited number of PCB uses in mind, mostly involving dielectric fluids, the regulations' application to other PCB uses and disposals results in strained and overly restrictive interpretations. Further, the environmental benefits realized from these interpretations are often disproportionate to the costs of compliance.

Although our comments address specific issues we have encountered, it is likely that other agencies and commercial interests have encountered similar situations. We believe these concerns cannot be effectively addressed with minor changes to the existing regulations, but that solutions require a rethinking of the general format and content of the PCB regulations. The existing regulations should apply only to the situations for which they were originally designed, i.e., those associated with liquid PCBs used as dielectric and hydraulic fluids. New sections should be added to address the many other materials and situations in which PCBs have been found. The regulations should be flexible enough to cover new PCB uses as they are discovered without imposing an unwarranted economic burden to achieve minimal or nonexistent environmental benefits. We hope that our comments contribute to a set of regulations which are clear, do not require strained interpretations for use in common situations, recognize the pervasiveness of PCBs, and fully consider the costs of compliance in relation to the environmental benefits realized.

The following pages provide background on the Navy's experience with PCBs, issues of primary importance to the Navy, and some additional comments on the regulations and issues raised by the Advance Notice of Proposed Rulemaking (ANPRM).

### III. BACKGROUND ON NAVY PCB ISSUES.

From the time of passage of the Toxic Substances Control Act (TSCA) until 1989, the Navy believed that PCBs were to be found primarily in electrical transformers, capacitors, and in hydraulic fluid. During this time the Navy took steps to comply with the labeling, spill cleanup, and other requirements of TSCA and 40 C.F.R. 761 as they relate to these uses.

In April 1989, during submarine inactivation work, the Navy discovered that a type of wool felt insulating material widely used on Naval vessels contained PCBs in high concentrations (typically 15 percent to 30 percent by weight). The wool felt material was procured to a performance specification which required a fire resistance capability. Some manufacturers apparently impregnated the wool felt material with PCBs to achieve this characteristic. Since the specification neither mentioned nor required the use of PCBs, the Navy was unaware that the material was contaminated. The Navy moved aggressively to deal with this matter. Appropriate federal and state agencies were informed of the discovery of the PCB felt material and its ongoing use in Navy ships. The EPA is aware of the scope of the Navy's efforts to deal with this situation.

Subsequent to the Navy's April 1989 discovery, extensive shipboard testing has been conducted to determine the extent of PCB use on Naval vessels. In addition to the previously known uses, this testing has shown that many common materials contain PCBs in concentrations above 50 parts per million (ppm). These materials, which in many cases were off-the-shelf, commercial products at the time of purchase, include plastics, paints, small rubber parts, adhesive tape, and insulating materials, such as the insulation in electrical cabling. Additionally, because of the widespread use of PCBs in a variety of applications, many equipment and ship metallic surfaces remain contaminated with PCBs.

As an example of the widespread use of PCBs, Navy surveys since October 1990 on 57 older surface ships and craft have shown that 56 of the vessels contain materials with PCB concentrations greater than 50 ppm, or surface contamination greater than 10  $\mu\text{g}/100\text{cm}^2$ . The Navy believes that similar results would be found in almost any older industrial setting in which the types of common materials described above were used.

#### **IV. MOST IMPORTANT ISSUES AND RECOMMENDATIONS.**

##### **A. Nonliquid, Bound PCB Materials**

We believe that most of the problems with the current regulations arise from the fact that the regulations were written to deal with issues specifically related to liquid PCBs used in applications such as dielectric fluid, and therefore are not well suited to the many other uses of PCBs.

We recommend that portions of Subparts B and D of 40 C.F.R. 761 dealing with use and disposal of PCBs be revised to apply only to liquid and resinous PCBs as found in transformers, capacitors, hydraulic machinery, and similar uses which were originally contemplated when the regulation was written. A new Subpart should be written dealing specifically with continued use and disposal of nonliquid, bound PCB materials, which would be defined as any PCBs inextricably bound in a solid matrix of fabric, rubber, plastic, or similar material.

##### **1. Continued Use of Nonliquid, Bound PCB Materials**

a. Issue: The current regulations are not clear regarding the permissibility of continued use of many common nonliquid, bound PCB materials.

b. Background: The current regulations state that PCBs may only be used in a "totally enclosed manner," with certain exceptions and authorizations as listed in the regulations. A "totally enclosed manner" is defined as "any manner that will ensure no exposure of human beings or the environment to any concentration of PCBs." Additionally, 40 C.F.R. 761.20 states that certain PCB-containing items, such as intact, nonleaking transformers, other electrical equipment, and cable are "considered totally enclosed," possibly implying that items not so listed are not considered totally enclosed. The regulations are unclear about whether many common recently discovered uses of nonliquid, bound PCB materials are "totally enclosed," and whether or not these materials may remain in use.

The PCB wool felt previously installed in ventilation duct gaskets and other applications poses a considerable dilemma. There is a very large amount of this material on board Naval vessels (on the order of 10,000 gaskets on an aircraft carrier). However, because the material is generally located in inaccessible or rarely accessed areas, and because the material is fixed between metal plates, the risk to human health or the environment is insignificant. Therefore, it is current Navy policy to remove the material only when necessary for other maintenance.

c. Recommendation: Nonliquid, bound PCB materials currently in use should be considered totally enclosed, and should be allowed to remain in use until their normal disposal, unless EPA finds that the particular use in question is likely to cause an unreasonable risk to human health or the environment. The regulations should clearly allow PCB materials enclosed within machinery or behind plating to be used until the end of their useful lives. Encapsulation with paint or other types of sealant should be considered sufficient to "totally enclose" the seams and edges of such PCB materials.

d. Justification: As EPA is aware, the Navy has performed extensive testing on many ships and submarines which shows that continued use of PCB wool felt on naval vessels in the types of applications described above does not pose a significant risk to human health or the environment. PCBs used in these types of applications should be handled in a way similar to asbestos, allowing continued use in applications which do not expose individuals to undue risk, and controlling the ultimate removal and disposal by appropriate occupational safety and health and environmental regulations.

Further, many of the nonliquid, bound PCB materials currently in use, and not specifically mentioned in the regulations, pose less environmental risk than other uses which are listed as "considered totally enclosed." For example, a small plastic part containing several hundred ppm of PCBs, inextricably contained in solid plastic, poses less environmental risk than a liquid-filled PCB transformer, because contact with the plastic component will not spread PCBs as contact with liquid PCBs would. Presumably, EPA did not specifically list these materials as "considered totally enclosed" because EPA was unaware of the fact that they contain PCBs. Given the current state of knowledge about PCBs, it is impossible to come up with a comprehensive list of all of these comparatively innocuous uses. Therefore, there should be a presumption that these uses are totally enclosed unless there is specific evidence of an unreasonable risk to human health or the environment associated with a particular use.

## 2. Disposal of Nonliquid, Bound PCB Materials and Associated Equipment

a. Issue: The existing PCB regulations do not adequately address disposal requirements for nonliquid, bound PCB materials. Many of these types of items are difficult to dispose of because they are closely attached to larger items or pieces of equipment: for example, small plastic parts within a much larger piece of equipment, or paint attached to a metal surface. Due to the total amount of waste of this type, as well as the large size of some of the individual items, neither incineration nor burial in chemical waste landfills is a practical option.

b. Background: This issue has arisen in connection with the disposal of a variety of nonliquid, bound PCB materials. Disposal requirements for these materials are unclear because the PCB regulations are unclear regarding acceptable methods for calculating PCB concentrations in ppm. Throughout the PCB regulations, reference is made to PCBs at various concentrations. In many cases, the regulations refer to specific types of PCB items, such as PCB Articles or PCB Contaminated Electrical Equipment with concentrations at certain levels. See, e.g., 40 C.F.R. 761.60(b). Sometimes the regulations refer simply to PCBs in concentrations above specified levels, other times they refer to "materials" at certain concentrations. See, e.g., 40 C.F.R. 761.1(b), which uses both terms. To calculate concentrations in ppm however, the "whole" against which the ratio is to be established must be determined. The present PCB regulations do not provide a methodology for calculating the PCB concentration in a specific item because they do not identify what constitutes the "whole." It is unclear to what terms, such as "PCBs" and "materials," are referring in the context of calculating PCB concentrations for any particular article or piece of equipment.

One example is electrical cabling which contains PCBs at fairly low concentrations in the solid plastic insulating material around the wires. The PCB concentration in this electrical cabling is normally less than 500 ppm taking the plastic insulating material as the "whole," and less than 50 ppm taking the cable as the "whole." Therefore, such electrical cabling would seem to meet the definition of either "PCB-Contaminated Electrical Equipment" or "PCB Articles with a PCB concentration between 50 and 500 ppm." In either case, the regulation would allow disposal by draining all free flowing liquid and disposing of the liquid in accordance with regulatory requirements. The disposal of the drained electrical equipment or article is not regulated, per 40 C.F.R. 761.60(b)(4) or 40 C.F.R. 761.60(b)(5). However, EPA Region X has advised the Navy that this interpretation is incorrect, and that the treatment described in 40 C.F.R. 761.60(b) applies only to electrical equipment or articles with free flowing liquids, despite the fact that the definitions contain no such restriction.

Since EPA Region X has rejected an interpretation that would allow unregulated disposal of the electrical cabling even assuming that the cabling contains between 50 and 500 ppm, it becomes important to know if the cabling contains more or less than 50 ppm, since the disposal requirements of Subpart D apply generally to materials at concentrations of 50 ppm and above. In this case, the determination of the "whole" becomes critical. EPA Region X has required the Navy to calculate the PCB concentrations in electrical cabling not against the weight of the cabling as a whole but against the weight of the plastic insulation surrounding the metal wires in the cable. As noted above, the concentrations of PCBs in the plastic insulation alone

may exceed 50 ppm, although they rarely exceed 500 ppm. The concentration of PCBs if measured against the weight of the entire cable however, is almost always below the regulatory control limit of 50 ppm.

The Navy believes that most commercial disposers of industrial material such as electrical cabling are unlikely to use the method of calculating PCB concentrations which EPA Region X has prescribed for the Navy, or even to recognize the likelihood of PCB presence in such material. Further, it is unclear that such stringent regulation of these materials is warranted in light of the regulation of other PCB materials.

c. Recommendation: The current exemption allowing small capacitors containing less than three pounds of PCBs to be disposed of in ordinary landfills should be extended to cover all manufactured items containing nonliquid, bound PCB materials. Additionally, EPA should provide clear guidance regarding the methodology for calculating concentrations of PCBs in parts per million. This guidance should permit the weight of any PCBs not easily drained or easily separable to be averaged over the realistic volume of the equipment to be disposed of, for example over an entire cable rather than just the insulation.

d. Justification: Nonliquid, bound PCB materials are clearly distinct from liquid PCBs. There is no environmental basis for regulating PCBs that are inextricably bound into the plastic structure of a very stable material as stringently as liquid PCBs. Furthermore, there is no environmental basis for treating electrical equipment differently than nonelectrical equipment containing the same PCB materials. Nevertheless, nonliquid, bound PCB materials are currently regulated more stringently than liquid PCBs, since the exemption allowing the disposal in municipal landfills of small capacitors containing liquid PCBs does not extend to other equipment containing nonliquid, bound PCB materials.

The calculation of PCB concentration in any given item is essential to determining how to dispose of that item. Our recommendation to allow PCBs to be averaged over the weight of an entire piece of equipment, rather than over a specific component or sub-element, is consistent with our understanding of the current disposal practices for scrapped equipment in private industry. For example, building demolition waste, including electrical cabling, is disposed of as ordinary solid waste rather than as PCB waste. Therefore the averaging method recommended would not result in any significantly greater release of PCBs to the environment than currently occurs. Since in most circumstances PCB material is not easily separated from a piece of equipment, such as insulation from a wire, a calculation over such a volume is not "dilution" but a logical recognition of the nature of the material.

Strict enforcement of the existing disposal regulations on common nonliquid, bound PCB materials would impose an undue financial burden on government and industry, with minimal environmental benefit. For example, requiring the disposal of electrical cabling in chemical waste landfills would overburden existing landfill capacity with tons of cabling for each pound of PCBs requiring disposal. Furthermore, PCBs which are inextricably intertwined with the waste matrix, such as PCBs which form part of the plastic insulating material on electrical cabling, are chemically captured, so unregulated disposal would have an insignificant environmental impact.

#### **5. PCB Surface Contamination**

The current regulations do not provide any guidance regarding the treatment of PCB surface contamination, except under 40 C.F.R. 761 Subpart G, "PCB Spill Cleanup Policy." This subpart was clearly written in contemplation of spills of dielectric fluid from transformers and capacitors, and does not address PCB surface contamination resulting from contact over a period of time with other PCB materials, such as PCB-impregnated wool felt. Additionally, the spill cleanup policy does not provide any guidance for cleanup of PCB spills which occurred prior to May 4, 1987. These spills are supposed to be cleaned up in accordance with requirements imposed on a case-by-case basis by EPA's regional offices. Although this flexibility is appropriate, the lack of any written guidance at all creates a great deal of confusion and uncertainty regarding the appropriate methods of dealing with PCB surface contamination.

Clear guidance is needed to address PCB surface contamination which is not the result of a known discrete spill of liquid PCBs into a localized area. The existing Spill Cleanup Policy is difficult to apply in situations where only a small total amount of PCBs must be dealt with, yet they are present in and around complex machinery or over large surface areas in which cleanup may take longer than several days to complete. The existing Spill Cleanup Policy is difficult to apply when a ppm concentration of spilled fluid cannot easily be calculated because no fluid has been spilled in the conventional sense. The existing Spill Cleanup Policy is also difficult to apply to large volume PCB items where the existence of PCB surface contamination is suspected, but the exact locations and contamination levels are unknown, and the surface area in question is extremely large.

We recommend that the existing Spill Cleanup Policy be revised to apply only to known spills of liquid PCBs since May 4, 1987. A new subpart should be added to the regulations, dealing specifically with other types of PCB surface contamination. The new subpart should deal with all issues related to items with PCB surface contamination, including continued use and disposal.

## **1. Continued Use of Items with PCB Surface Contamination**

**a. Issue:** The current regulations provide insufficient guidance for the treatment of PCB surface contamination other than from a known recent spill on items intended to remain in use.

**b. Background:** In many instances, the Navy is removing nonliquid, bound PCB material from service, but is retaining in service the metal surfaces which were in contact with these materials. An example is shipboard ventilation ductwork with PCB impregnated wool felt gaskets. These gaskets are removed in the course of normal maintenance requiring disassembly of ductwork bolted joints. Since these gaskets were installed prior to 1987, we are treating PCB surface contamination on the duct metal surfaces as an "old spill," and cleaning it up as directed by EPA regional offices, in accordance with 40 C.F.R. 761.120. EPA regional offices have generally required cleanup to a level of  $10 \mu\text{g}/100\text{cm}^2$ , which in many instances has been very difficult to achieve. The Navy has proposed encapsulation by painting as an alternative to cleaning on ventilation ducts where PCB wool felt gaskets have been removed, and has provided data to EPA regarding the effectiveness of encapsulation.

A related issue is the presence of PCB surface contamination on shipboard surfaces where the exact time of contamination is not apparent, and the surface areas in question are potentially very large, not easily amenable to decontamination and sometimes virtually inaccessible. For example, random wipe sampling of deckplates and other surfaces on the interior of older naval vessels occasionally reveals the presence of PCB surface contamination at levels in excess of  $10 \mu\text{g}/100\text{cm}^2$ , usually between 10 and  $50 \mu\text{g}/100\text{cm}^2$ . These PCBs are at times found on surfaces which cannot be painted or effectively cleaned because of their surface composition or inaccessible locations. It is noted that the presence of contamination at this low level does not require the use of protective measures under Occupational Safety and Health Administration requirements. Thus, since Navy personnel are familiar with PCB presence aboard ships, the shipboard environment is highly controlled, and the total amounts of PCBs on the surfaces are small, decontamination is not done because these PCBs do not present a personnel safety hazard. This approach was formulated, in part, because the regulations do not provide any clear guidance on what to do about low-level contamination from sources other than a known, discrete spill. We expect such contamination would be found in many older industrial facilities where personnel may not be aware of PCB presence.

c. Recommendation: The Spill Cleanup Policy should allow reasonable amounts of time to address surface contamination which is not the result of a known discrete spill. Decontamination levels should be flexible, depending on the location of the contaminated area and the degree to which the contamination is likely to migrate into the environment. Alternative methods of addressing the contamination, such as by encapsulation with paint, should be explicitly permitted. Cleanup policy should depend on the total quantity of PCBs involved, rather than a ppm calculation of the source, since this measurement more appropriately reflects the environmental risk associated with the contamination and is possible to apply in situations where the source concentration is unknown.

d. Justification: Given the number of PCB uses which have been uncovered over the past several years which are not addressed in the existing regulations, it can be expected that surface contamination resulting from many of those applications will continue to be uncovered in the future. It is clearly impracticable to require cleanup of PCB surface contamination where the existence or location of the contamination is unknown. Guidance is needed that protects human health and the environment, but which is not so burdensome and difficult to interpret that organizations are reluctant to look for PCB surface contamination for fear of finding it. (The current regulations do not require anyone to look for surface contamination in the absence of a known spill.) As an alternative method for treating surface contamination on or around objects intended for continued use, encapsulating with paint should be preferable to decontaminating with solvents since decontaminating with solvents generates much more PCB hazardous waste and increases worker exposure to PCBs and solvents.

## 2. Disposal of Items with PCB Surface Contamination

a. Issue: The PCB Regulations do not address the degree of cleaning required before smelting scrap metal with PCB surface contamination.

b. Background: When older vessels are dismantled for purposes of recycling the hull, PCB-containing wool felt is removed and disposed of as PCB waste. The remaining steel hull, however, is contaminated with residual PCBs from contact with the wool felt. The PCB contamination levels found on hull sections range up to 20,000  $\mu\text{g}/100\text{cm}^2$  in spots, with much lower levels over most of the hull. In the case of a submarine, this level of surface contamination is less than 5 ppm PCBs by weight averaged over the weight of a hull.

Except in the spill cleanup policy, 40 C.F.R. 761, Subpart G, EPA's PCB Regulations do not address the level of PCB surface contamination at which an item is considered no longer

subject to regulation. Cleanup in accordance with the spill cleanup policy creates a presumption against the need for further cleanup under TSCA. The policy however, does not provide standards for the cleanup of items slated for a treatment such as smelting from which they will presumably emerge without any surface contamination. Instead, it largely concerns itself with establishing standards for spill cleanups where continuing human or environmental contact with the spill site is anticipated. Consequently, under current regulations, the hulls or other metal surfaces must be decontaminated in accordance with the spill cleanup policy before they are shipped for smelting and recycling.

The cost of decontaminating scrap metal in accordance with the spill cleanup policy prior to smelting it imposes an undue financial burden on the taxpayer, with no demonstrable benefit to health or the environment. In fact, the process probably has a negative health and environmental effect due to the increased exposure of shipyard workers to PCBs and volatile solvents during the cleaning process and due to the tremendous amount of PCB/hazardous waste generated. For example, during the dismantlement of the ex-USS SCAMP at Puget Sound Naval Shipyard, PCB decontamination of hull steel to a level of 10  $\mu\text{g}/100\text{cm}^2$ , in accordance with EPA Region X guidance, resulted in several thousand worker-days of contact with PCBs and volatile solvents. Although the Navy has implemented strict Occupational Safety and Health controls on this work, the methods used are necessarily very labor intensive, and involve close contact with the PCBs. Since the PCBs are embedded in the hull paint they must be removed by hand, scrubbing the hull steel with abrasives, and using solvents in which PCBs have high solubility. This creates a high risk of worker exposure to PCBs and solvent fumes.

With regard to hazardous waste, the cleaning of the hull steel on the ex-SCAMP generated 174, 55-gallon drums of PCB/hazardous waste, in order to remove a few pounds of PCBs. It is ironic that 40 C.F.R. 761 requires use of organic solvents to remove PCBs, but the EPA's DRAFT Interim Guidance on Nonliquid PCB Disposal Methods, dated July 3, 1990, says that coincident disposal of PCBs and organic liquids should be avoided. The drums of PCB waste generated during the ex-SCAMP dismantlement are certainly more environmentally hazardous than the sections of hull steel with fixed PCB surface contamination.

The cost of decontaminating the hull steel from the ex-SCAMP was roughly \$2.2 million. If a standard of 300  $\mu\text{g}/100\text{cm}^2$  had been allowed, the cost would have been about \$700,000. For comparison, the Navy has determined that the interior surfaces of drained PCB-Contaminated Transformers are contaminated to levels of roughly 300  $\mu\text{g}/100\text{cm}^2$ . Under 40 C.F.R. 761.60(b), the disposal of such transformers, once drained, is not subject to regulations. Decontaminating the hull of the

ex-SCAMP to 300  $\mu\text{g}/100\text{cm}^2$  would have removed roughly 90 percent of the PCBs on the hull, reducing the PCB contamination to less than 0.4 ppm averaged over the weight of the hull, and to less than a third of a pound of PCBs overall. The marginal cost of decontaminating the hull of the ex-SCAMP to 10  $\mu\text{g}/100\text{cm}^2$  compared to 300  $\mu\text{g}/100\text{cm}^2$  was roughly \$5,000,000 per pound of PCBs removed.

c. Recommendation: The PCB regulations should specifically allow disposal by smelting of PCB-contaminated scrap metal provided that easily separable PCB materials (such as PCB wool felt) have been removed.

d. Justification: Testing and cleaning every potentially contaminated surface of industrial equipment before disposing of it is a financial burden which appears to offer minimal or even negative environmental benefits in relation to the costs involved. If scrap metal from submarine recycling were permitted to be smelted without decontamination, the amount of worker exposure to PCBs and solvents, the amount of PCB hazardous waste generated, and the cost to the taxpayer would all be greatly reduced. Although the amount of PCBs sent to the smelter would increase, this amount would still be very small in relation to the amount of scrap metal. Moreover, these PCBs would be distributed over many furnace firings and most would be incinerated during the smelting process. Normal industrial practices for smelting of scrap steel meet many of the requirements of 40 C.F.R. 761 for incineration of PCBs. For example:

(1) 40 C.F.R. 761 rules for PCB incineration require PCB waste to dwell in the high heat for two seconds (at 1200 C) or for 1-1/2 seconds (at 1600 C). The steel making process also provides this amount of dwell time. The furnaces are preheated to approximately 2000 C (3000 C for electric arc) for maximum production efficiency, and are maintained at this temperature for approximately 60 to 90 minutes as the steel becomes molten.

(2) EPA-approved PCB incineration requires monitoring of the following parameters: (1) oxygen; (2) carbon monoxide; (3) carbon dioxide; (4) oxides of nitrogen; (5) hydrochloric acid; (6) total chlorinated organic content; (7) PCBs; and (8) total particulate matter. Steel making facilities also monitor oxygen, carbon monoxide, and hydrochloric acid to meet pollution control requirements unrelated to PCBs, and to preclude stack explosions.

(3) EPA-approved PCB incineration requires the use of water scrubbers for hydrochloric acid control. Commercial steel furnaces are also equipped with water scrubbers since hydrochloric acid is a by product of the steel making process.

Given the relatively small quantities of PCBs which would be introduced into the process to begin with, the Navy

believes that melting of scrap steel with PCB surface contamination would not produce any detectable levels of PCBs in stack gasses.

### **C. Storage, Packaging and Transportation of Nonliquid PCB Materials**

1. Issue: Existing storage, packaging, and transportation requirements are inappropriate for situations involving nonliquid, bound PCB materials, and scrap metal with PCB surface contamination.

2. Background: The Navy must frequently store and transport voluminous material such as electrical cable containing PCBs in solid plastic insulation, PCB contaminated scrap metal, and sections of ductwork containing PCB wool felt gaskets. Packaging of these large items that contain, or are contaminated with, relatively small amounts of PCBs in the Department of Transportation (DOT) certified containers is impracticable. For example, the only feasible way to transport sections of submarine hull steel, which may weigh several tons, is in railway gondola cars.

3. Recommendation: Transport of PCB material in DOT containers should only be required for liquid PCBs and associated wastes which, if unregulated, could have the potential to leach into the environment. Transportation without disassembly or special packaging of material such as contaminated scrap metal, electrical cable, and complex equipment with small PCB components should be explicitly allowed.

4. Justification: The amount of PCBs associated with these large items is, in general, very small. The PCBs are also generally fixed in position and would not cause surface contamination upon contact or leach into the environment. There is no evidence to show that the cost of cutting waste into pieces is justified by the small or nonexistent environmental benefit of transporting these PCB materials in DOT containers.

### **D. Distribution in Commerce**

1. Issue: The PCB regulations inhibit the transfer of economically valuable industrial plants and equipment.

2. Background: Although section 6(e) of TSCA allows the distribution in commerce of PCBs first sold prior to July 1, 1979 for purposes other than resale, EPA, through its authority under section 12(a)(2) of TSCA, has determined that the distribution in commerce of PCBs at concentrations of 50 ppm or greater presents an unreasonable risk of injury to health within the United States. Therefore, EPA has restricted the distribution in commerce of these PCBs and PCB items sold before

July 1, 1979 for purposes other than resale, to those which are totally enclosed. The practical effect of this requirement, if read literally, is to prohibit the sale of any older industrial plant, major equipment, or vessel in which PCBs have historically been used unless all nontotally enclosed uses, and all PCB surface contamination, have been removed from the sale item.

Older industrial plants, major equipment, and vessels where PCBs were used for many years are almost certain to have some PCB surface contamination and some nontotally enclosed uses of PCBs which have not been discovered by the owners. The extent of use of PCBs on naval vessels, and probably in other types of industrial settings is described in detail elsewhere in this document.

The removal of all PCB surface contamination in industrial settings and of all nontotally enclosed uses of PCBs is not technically feasible, because even a very thorough survey and cleanup of a large vessel or industrial plant is likely to fail to locate all PCBs. Because these PCBs are not used in a totally enclosed manner, however, they cannot be transferred to another party in the course of a sale of the plant, equipment, or vessel because such a transfer would generally constitute a distribution of the PCBs in commerce.

3. Recommendation: EPA should reconsider its limitation on the distribution in commerce of PCBs that were first sold prior to July 1, 1979 for purposes other than resale and that are not used in a totally enclosed manner. The sale or other transfer of industrial plants, major equipment, and vessels in which PCBs are a minor component should be permitted if full disclosure is made to the transferee of the known past use and/or presence of PCBs at the site or in the equipment, and the possibility of unknown uses.

4. Justification: The Navy believes that the preceding recommendation would offer adequate protection to human health and the environment without necessitating the destruction of valuable industrial resources and that, at least with respect to the fact that such transfers between commercial firms occur regularly, the regulation would more closely correspond to reality. Our recommendation is also consistent with Congressional intent. The Conference Report on TSCA (House Conf. Rep't No. 94-1679, reprinted in 1976 U.S. Code Cong. and Admin. News 4562) states, "[s]o that existing PCBs may be reused rather than disposed of, the prohibitions [i.e., the complete ban on PCBs] do not apply to distribution in commerce of PCBs sold for purposes other than resale before the effective date of the prohibition on the distribution of PCBs."

## **V. OTHER ISSUES AND RECOMMENDATIONS.**

### **A. Comments on ANPRM Section II.D., Exemption for Household Wastes**

The ANPRM requests comments on a proposed exemption for household wastes. We are not opposed to such an exemption. However, we believe that such an exemption only scratches the surface of the PCB disposal problem. An exemption for households is probably redundant; using the ANPRM's example of a can of paint, the typical homeowner is not conversant with the Code of Federal Regulations, and does not perform a chemical analysis of used cans of paint prior to throwing them away. Most homeowners in possession of PCB-containing household products will continue to dispose of them via municipal trash collection with or without any change in the regulations. Also, the provision being considered does not deal with the more difficult question of what to do with the wall which has been painted with PCB-containing paint. By living in a house painted with PCB-containing paint, is the homeowner using PCBs in other than a totally enclosed manner? Will the homeowner be allowed to sell his home without violating the prohibitions on distribution in commerce? What will be the proper method for disposing of the debris when the home is torn down? These types of difficult questions face not only homeowners, but also businesses of all sizes, and government agencies. The PCB regulations should be revised to address these problems.

### **B. Comments on ANPRM Section III.A., Marking Requirements**

The Navy concurs that duplicative sections in the regulations are unnecessary and needlessly confusing. We recommend that 40 C.F.R. 761.40(b) be deleted, and that section 40 C.F.R. 761.40(e) be rewritten to delete the date (see comments below on needless inclusion of past dates in PCB regulations).

### **C. Comments on ANPRM Section III.B., DOT Containers for Storage of PCB Waste**

As noted above, packaging of nonliquid, bound PCB materials and PCB-contaminated scrap metal should be treated separately in the regulations from packaging of liquid PCB waste.

The Navy recommends that EPA defer to DOT on what type of packaging should be used to store and transport liquid PCB waste. The PCB regulations should simply cite the C.F.R. location of the appropriate DOT regulations. Listing all of the drum types permitted by DOT would require revision to the PCB regulations each time DOT revised its regulations and the potential for contradictory requirements. Any time waste must be characterized, temporary storage in easily accessed containers should be permitted.

**D. Comments on ANPRM Section III.C., Policy Regarding the Definition of a PCB Transformer**

The Navy concurs with the inclusion of the language regarding when a transformer must be assumed to be a PCB Transformer. Policy should be clear from the face of the regulations, and an understanding of requirements should not require reference to the preamble to rules published in the Federal Register, which are not easily accessible. The clarification of PCB-Contaminated Electrical Equipment in this section of the ANPRM remains confusing. First, it restates the definition of "PCB-Contaminated Electrical Equipment" inaccurately. Nothing in the C.F.R. definition refers to items that may be "assumed to be less than 50 ppm;" the definition states that items "whose PCB concentration is unknown must be assumed to be PCB-Contaminated Electrical Equipment." Second, it refers to an old Federal Register (44 FR 31531), presumably for a discussion of when one "has reason to believe a transformer contains PCB (askarel) dielectric fluid or otherwise has 500 ppm PCB or greater. . . ." Third, the use of "unless" in the sentence beginning "[u]nless there is reason to believe a transformer contains PCB (askarel) dielectric fluid . . ." implies that if a transformer contains PCB (askarel) dielectric fluid or otherwise has 500 ppm PCB or greater, it can be classified as PCB-contaminated. This, of course, is incorrect.

**E. Comments on ANPRM Section III.D., Drained PCB-Contaminated Transformers**

EPA has expressed concern with the fact that drained PCB-contaminated electrical equipment is being reused rather than being disposed of. The current regulations are somewhat ambiguous regarding the fact that the drained equipment must be disposed of; they state only that "[t]he disposal of the drained electrical equipment is not regulated by this rule." EPA should amend this statement to say that the drained electrical equipment must be disposed of and that the only acceptable means of salvaging the metals in the equipment is by smelting, but that the equipment's disposal is not otherwise regulated by the rule. Although EPA may find it necessary to require stricter controls to ensure the unit was in fact drained of all free flowing liquid, further decontamination should not be required once liquids have been drained in accordance with these requirements.

**F. Comments on ANPRM Section III.E., Temporary Storage of Greater than 500 PPM PCB Liquid**

We believe that some temporary storage of liquid PCBs greater than 500 PPM is an inevitable part of the disposal process, for example while waiting for a truck to arrive to carry the PCBs to the disposal site.

30 day temporary storage of greater than 500 ppm liquid should be allowed provided that containers are managed in a manner consistent with a long term storage facility, i.e., secondary containment, protection from the weather, regular inspections for leaks, etc.

The temporary storage should not include the transfer of PCB liquid to 55 gallon drums. This should be viewed as processing for disposal. Clarification of processing for disposal requirements should be consistent with the requirements of a RCRA accumulation area (i.e., allow three days to transfer from accumulation area to a proper storage facility).

**G. Comments on ANPRM Section III.F., Sale of Totally Enclosed PCBs or PCB Items Greater than 50 PPM**

Although the Navy understands EPA's rationale for the proposed record keeping requirement, we are concerned about the additional paperwork burden this would place on the Navy unless an exception is included which would permit the transfer or sale of vessels (other than scrap sales) without individually identifying each PCB transformer or large capacitor. Inventories of these items on vessels are generally conducted only before vessels are scrapped. A similar exemption might be desirable for sale of buildings or industrial facilities which include large numbers of PCB transformers and capacitors. We hope that EPA would balance the benefits of any new record keeping requirement against the cost of the recordkeeping burden on government agencies and industry.

**H. Comments on ANPRM Section III.G., Spill Cleanup Policy**

As addressed above, the spill cleanup policy should be amended to deal specifically with known recent spills of liquid PCBs. Other instances of PCB surface contamination should be dealt with in a separate section of the regulation.

The Navy believes that EPA should amend the PCB regulations to reflect current requirements for National Response Center notification. The PCB regulations state at 40 C.F.R. 761.125(a)(1), under Reporting Requirements, that spills involving 10 pounds or more by weight of PCBs must be reported to the National Response Center. However, as noted in the ANPRM, spills of 1 pound or more by weight of PCBs must be reported to the Response Center under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) regulations. In responding to a spill, responsible parties are more likely to read the PCB regulations than to look up their responsibilities under another regulation, especially when the PCB regulations appear to provide the information they need.

Additionally, the spill cleanup policy should be clarified to provide criteria for cleanup of spills when the spilled fluid contains less than 50 ppm of PCBs. Even though dielectric fluid containing less than 50 ppm is not required to be treated as PCB hazardous waste, in the Navy's experience such a spill can result in PCB surface contamination greater than 10  $\mu\text{g}/100\text{cm}^2$ .

## **I. Comments on ANPRM section III.E., PCB Storage Requirements**

### **1. Indefinite Storage for Reuse:**

The Navy is opposed to any fixed time limitation on the storage of PCB articles for reuse. The issue of whether PCB Articles are being stored for reuse or their storage constitutes an illegal disposal is fact-based. EPA is unlikely to be able to come up with storage time limitations which adequately address all situations. For example, the Navy and the other services store a great deal of equipment for long periods of time for use in a wide variety of military contingencies. The fact that military equipment has been in storage for a long period of time does not indicate that it will not be needed for use at some future time. The Navy is also opposed to the proposal to require that a "reuse or reclassification schedule" be developed on a case-specific basis and submitted to EPA for approval. This would create a very large paperwork burden and is a poor use of limited regulatory resources.

Rather than going forward with either of these proposals, the Navy recommends that the EPA provide guidance regarding what constitutes "use" and what constitutes an appropriate "storage for reuse." Neither of these terms are currently defined in 40 C.F.R. 761. Without clear definitions of "use" and "storage for reuse," there is bound to be confusion as to when the one year storage-for-disposal clock starts ticking.

### **2. Clarification of the 1-year storage for disposal requirement:**

One storage issue the Navy has become aware of is that the PCB regulations do not make it clear that one who stores PCB wastes for greater than 9 months risks violating the maximum one-year storage regulations if the disposal facility to which the PCB waste is shipped does not destroy the PCBs within a year of the date the PCBs were removed from service.

At 40 C.F.R. 761.65(a), the regulations state that any PCB Article or PCB container stored for disposal after January 1, 1983, shall be removed from storage and disposed of as required by subpart D of this part within one year from the date when it was first placed into storage. At 40 C.F.R. 761.205(e),

the regulations refer to the fact that the requirements under that section to notify EPA and obtain EPA identification numbers cannot serve to excuse compliance by any person subject to the 1-year limit on storage prior to disposal. Under "Exception Reporting" at 40 C.F.R. 761.215(c) however, a disposal facility which receives PCBs or PCB Items on a date more than 9 months from the date the PCBs or PCB Items were removed from service for disposal must file an exception report if the disposal facility cannot dispose of the PCB waste within one year of the date the waste was removed from service for disposal. While it is logical that a facility which stores PCB waste for a year will in most cases be unable to dispose of them offsite within a year of the date the PCB waste was removed from service, the storage requirements are somewhat confusing and tend to lead a storer to believe he is within the law as long as the PCB waste is shipped for disposal within a year. If storers received better warning about the requirements, there would be fewer exception reports and fewer notices of violation.

The Navy recommends that EPA amend 40 C.F.R. 761.65(b) to provide that PCB waste storers who ship PCBs off site for disposal shall ship such waste in time for the disposal facility to receive it within 9 months of the date the PCBs were removed from service for disposal.

3. Situations which warrant an extension of the 1-year storage for disposal requirement:

The Navy feels that certain situations do warrant extension of the one year storage for disposal requirement. For example, nonliquid, bound PCB materials and PCB-contaminated scrap metal do not pose the risk of a spill while in storage; therefore, much of the rationale for the one year storage requirement is not present. Also, certain co-regulated wastes pose unique disposal problems which may make one year disposal impracticable. As an example, the Navy is in the process of disposing of mine cable coated with a solid anti-fouling compound containing both PCBs and mercury. Because of the unique technical and legal difficulties sometimes encountered in properly disposing of this type of co-regulated waste, additional disposal time should be allowed on a case-by-case basis. In general, the regulations should provide flexibility in the storage-for-disposal requirements for PCB wastes when disposal within one year is not technically feasible or would impose an undue financial burden, and when continued safe storage is reasonably assured.

J. Comments on ANPRM Section III.I., Exclusion for Laboratories

The Navy supports the proposed exemption for laboratories.

**K. Comments on ANPRM Section III.J., Class exemption for EPA and NIST**

The Navy supports EPA's position regarding this issue.

**L. Comments on ANPRM Section III.K., 500 Gallon Exemption**

Although the proposed exemption for commercial storers of a small quantity of nonliquid PCB waste does not affect the Navy directly, we think the fact that the exemption does not currently exist is indicative of the PCB regulations' concentration on liquid PCBs and their failure to address many common situations involving nonliquid, bound PCB materials. If PCBs are inextricably captured in a solid waste matrix, their storage should pose less risk than the storage of small quantities of liquid PCBs.

**M. Comments on ANPRM Section III.L., State Enhancement Activities**

The Navy does not support transferring greater authority for PCB regulation to the states. PCB regulation under TSCA offers a uniform set of standards and requirements applicable to PCB use, storage, and disposal. This is appropriate given the commonality of PCB issues and the limited methods and facilities available for PCB disposal. Encouraging states to list PCBs under their State RCRA program by making resources available through grant programs appropriated by Congress would undo this uniformity and result in substantial changes in the highly structured TSCA PCB regulatory approach, which has evolved independently from RCRA and is not easily reconciled with it. For example, PCBs are regulated by concentration under TSCA, but this is not an approach used under RCRA. At present, the TSCA regulations require the mandatory phaseout of some PCB equipment under established timetables. Any interference with this schedule will place an undue burden on facilities which have planned their compliance in accordance with these timetables. Moreover, many organizations have developed storage facilities and disposal schedules based on the one year PCB storage-for-disposal rule. Under RCRA, any storage over 90 days could require a treatment, storage, disposal (TSD) permit. TSD permitting for PCBs could draw in RCRA corrective action requirements which may conflict with the TSCA spill cleanup policy. Some PCB treatments are mobile, that is, the treatment process comes to the site to destroy PCBs; RCRA does not have a permitting procedure for mobile treatments. In sum, the Navy believes that greater state regulation of PCBs will place an unnecessary burden on those managing PCBs, diminish national consistency without offering any concomitant benefits, and divert limited state resources to an already well regulated area.

## **N. Outdated Information in the Regulations**

The PCB Regulations are replete with unnecessary references to requirements that were true until some date in the past. For example, in 40 C.F.R. 761.20(c), EPA provides a great deal of information regarding requirements which are no longer valid. Section 761.20(c)(3) discusses at length the requirements for a notice to export PCBs for disposal prior to May 1, 1980. Another example is found at 40 C.F.R. 761.65(a) which discusses PCB items stored for disposal before January 1, 1983 having to be disposed of by 1984. The Navy recommends that EPA delete all outdated material from the regulations. The regulations are complex enough without having to wade through unnecessary information.

## **O. Definition of Excluded PCB Products**

The Navy also recommends that the definition of "Excluded PCB products" in 40 C.F.R. 761.3 be amended to refer to PCB Items, rather than to PCB products and PCB materials, which are not defined in the regulations. The examples provided for "excluded PCB products" should also be less obscure (e.g., investment casting waxes as a product contaminated with PCB materials from historic PCB uses is not a helpful example because it is difficult to relate to other PCB uses).

## **VI. CONCLUDING REMARKS.**

The Navy has made significant progress in the last two years in identifying many previously unknown uses of PCBs, and in developing environmentally responsible approaches to dealing with these new findings. In the process of confronting the difficult issues raised by these previously unknown uses, we have identified many areas where the current regulations could be improved. We appreciate the willingness of EPA to reconsider the appropriateness of its existing regulations in light of new information.

Although we have learned much about PCBs and their uses in the past two years, we suspect that there is still much to be learned. Therefore, we hope that the ANPRM, and our response, will be part of an ongoing dialogue needed to keep the regulations current with the latest assessment of the PCB situation. This type of ongoing dialogue and willingness to change the regulations based on new information is essential if EPA is to meet the intent of TSCA by regulating PCBs in a reasonable and prudent manner, considering environmental, economic, and social impacts.



DEPARTMENT OF THE NAVY  
OFFICE OF THE CHIEF OF NAVAL OPERATIONS  
WASHINGTON, DC 20350-2000

IN REPLY REFER TO  
4000  
Ser 451C/1U599820  
01 Apr 91

Mr. Christian Holmes  
Deputy Assistant Administrator, Federal Facilities  
United States Environmental Protection Agency  
Washington, D.C. 20460

Dear Mr. Holmes:

In April 1989, the Navy discovered that a wool felt insulating material installed aboard some naval warships contained polychlorinated biphenyls (PCBs). The discovery of this previously unknown use of PCBs occurred during submarine inactivation work performed at the Puget Sound Naval Shipyard. The wool felt material was procured under a performance specification which required a fire resistance capability. Some manufacturers apparently impregnated the wool felt material with PCBs to achieve this characteristic. PCBs were not a regulated substance at the time this material was manufactured and procured. Since the specification neither mentioned nor required the use of PCBs, the Navy was unaware that the material was contaminated.

The Navy has moved aggressively to deal with this matter. Appropriate federal and state agencies were informed of the discovery of the PCB felt material and its on-going use in Navy ships. In addition, efforts are continuing to identify facilities which may have received PCB contaminated material unknowingly from the Navy. Extensive review of ship drawings and specifications revealed that the PCB felt was used as acoustic damping material and a gasket material aboard submarines and surface vessels. In addition, it was discovered that some of the wire cabling used aboard Navy ships contains PCBs. Appropriate Navy commands have been notified of these previously unknown uses of PCBs and technical guidance has been issued to ensure protection of personnel and the environment. Sampling is conducted aboard vessels suspected of containing PCBs prior to maintenance, repair or disposal efforts. Naval shipyards have implemented stringent safety procedures to protect the health and safety of workers and comply with applicable environmental laws and regulations. Extensive testing was conducted in active and inactive vessels. The results show that the use of the PCB felt material on Navy ships is not a threat to the health of the ships' crews or other personnel.

Beginning in September 1989, we have met several times with Environmental Protection Agency (EPA) technical and enforcement personnel to discuss this matter. These meetings have been very helpful in our attempt to identify and resolve the problems created by this discovery. However, since the Navy's continued

ENCLOSURE(2) 12

use of the felt may violate regulations established pursuant to the Toxic Substances Control Act (TSCA), we believe that a compliance plan developed pursuant to Section 1-601 of Executive Order 12088 is required. An approved compliance plan would ensure EPA input into the Navy's plan of action and assist us in making technical and fiscal decisions.

I am enclosing a copy of a proposed compliance plan for your approval as required by Executive Order 12088. It is intended to be comprehensive in terms of our present understanding of the issues which require resolution. It addresses technical issues such as clean up of residual PCB contamination during maintenance operations as well as foreign military sales/transfers and operational/training issues involving vessels containing PCB material.

I look forward to continued close cooperation between our agencies on this matter.

Sincerely,



**S. F. Loftus**  
**Vice Admiral, U.S. Navy**  
**Deputy Chief of Naval**  
**Operations (Logistics)**

Encl:

(1) Compliance Plan Respecting PCBs Aboard Naval Vessels

COMPLIANCE PLAN  
RESPECTING PCBs ABOARD NAVAL VESSELS

I.

PREAMBLE

1. Executive Order No. 12088 of October 13, 1978 provides that the head of each executive agency is responsible for: (1) ensuring that all necessary actions are taken for the prevention, control, and abatement of environmental pollution with respect to Federal facilities and activities under the control of the agency, and (2) for compliance with applicable pollution control standards, including those established pursuant to the Toxic Substances Control Act (TSCA) (15 U.S.C. 2601 et seq.) and the Marine Protection, Research and Sanctuaries Act of 1972, as amended (MPRSA) (33 U.S.C. 1401 et seq.). Under Executive Order No. 12088, each executive agency is obliged to cooperate with the Administrator of the U.S. Environmental Protection Agency (EPA) in the prevention, control, and abatement of environmental pollution, and to consult the Administrator concerning the best techniques and methods available for this purpose. Finally, Executive Order No. 12088 provides that in the event of noncompliance with an applicable pollution control standard, the executive agency shall promptly consult with the appropriate agency and shall provide for its approval a Compliance Plan to achieve and maintain compliance with the applicable pollution control standard. The United States Navy has discovered aboard Navy ships the use of Polychlorinated Biphenyls (PCBs) not presently authorized in accordance with applicable pollution control standards promulgated by EPA pursuant to the TSCA.

II.

DEFINITIONS

2. Except as noted below or otherwise explicitly stated, the terms in this Compliance Plan shall have their ordinary meaning unless otherwise defined in the PCB Regulations, 40 C.F.R. Part 761, or the Ocean Dumping Regulations, 40 C.F.R. Subchapter H. The following definitions apply to this Compliance Plan:

a. "Felt" means wool felt material impregnated with PCBs.

b. "Fleet" means all ships and craft (vessels) on the United States Naval Vessel Register or transferred to the Maritime Administration as part of the Naval Reserve Defense Fleet or retained at Naval Inactive Ship Maintenance Sites, or naval shipyards, or otherwise under the control of the Navy.

14

c. "Spill" means a PCB spill, as defined in 40 C.F.R. 761.123, occurring prior to 4 May 1987.

d. "Survey", as applied to vessels being transferred to other parties, means to take a representative sampling from the types of equipment and locations the Navy has ascertained as potential sources of PCBs on Navy vessels.

e. "Wire cables" refers to the entire wire cable assembly, including the jacket surrounding the metallic wire and the wire itself as well as any connectors or circuit breakers.

### III.

#### STATEMENT OF FACTS

3. In 1989, the Navy discovered the presence of wool felt impregnated up to 30 percent by weight with PCBs on submarines and surface vessels in the fleet. The felt was used in a number of applications, including as acoustical damping material on submarines and as gasket material in the joints of ventilation ducts, as a faying or insulating material between dissimilar metals on all ships, and as machinery mount insulation. The felt is more than 50 ppm PCBs.

4. Prior to the 1989 discovery of this felt on vessels, the Navy had no knowledge that it was using PCBs in the applications described above. The military specifications for the felt (NAVY 33F8 or MIL-G-20241) required the use of a fire retardant but did not specify the use of PCBs. The Navy procured felt under these specifications from approximately 1948 until 1971 for use in a variety of applications, and, in some cases, the felt may have been installed in older vessels during overhauls or maintenance.

5. The Navy has removed all felt from the naval supply system. Neither the Navy nor its contractors is using the felt in new construction or the repair of naval vessels.

6. The use of PCBs and PCB items is regulated by EPA under 40 C.F.R. Part 761. Any PCB or PCB item regardless of concentration, may not be used in any manner other than in a totally enclosed manner within the United States unless authorized under Section 761.30. See 40 C.F.R. 761.20.

7. The Navy's use of felt aboard fleet vessels is not presently an authorized use as described in the PCB Regulations (40 C.F.R. 761.30).

8. The Navy reported this use of felt to EPA upon its discovery in 1989.

9. When felt is removed from ventilation ductwork or other sites, the adjacent area formerly in contact with it contains residual PCBs from the felt which itself contains PCBs at a concentration greater than 50 ppm. Because this contamination has probably existed since the felt was installed, the release or spill is deemed to have occurred prior to 4 May 1987.

10. The EPA Regulations, 40 C.F.R. Part 761, cover residual PCBs in the requirements for PCB spills and require the cleanup of residual PCBs resulting from the release of materials containing PCBs at concentrations of 50 ppm or greater. The cleanup standards for contamination, which occurred prior to 4 May 1987, are to be set on a case specific basis.

11. In 1990, the Navy also discovered that, in many instances, the jackets insulating wire cables on Navy vessels contain PCBs in concentrations greater than 50 ppm. This use of PCBs is authorized under the PCB Regulations (40 C.F.R. 761.30(m)).

12. PCBs in the jackets of wire cables are inextricably bound in the material of the jacket. The material is a corrosion resistant plastic designed for use in a salt air/salt water environment.

13. MPRSA authorizes the EPA Administrator to issue general permits for the transportation for dumping of specified materials or classes of materials which he determines will have a minimal adverse environmental impact (33 U.S.C. 1414(c)). Under the Ocean Dumping Regulations, 40 C.F.R. Subchapter H, the Navy has a general permit to transport vessels from the United States for the purpose of sinking such vessels in ocean waters in testing ordnance (40 C.F.R. 229.2). Such vessels must be sunk in water at least 1,000 fathoms (6,000 feet) deep and at least 50 nautical miles from land (40 C.F.R. 229.2(a)(2)). This permit requires the Navy "to remove to the maximum extent practicable all materials which may degrade the marine environment, including without limitation...(ii) removing from the hulls...pollutants and all readily detachable material capable of creating or contributing to chemical pollution" (40 C.F.R. 229.2(a)(4)).

14. Under the Ocean Dumping Regulations, 40 C.F.R. Subchapter H, the Navy, among others, has a general permit to transport vessels from any location for the purpose of disposal in the ocean (40 C.F.R. 229.3). In addition to other requirements (40 C.F.R. 229.3(a)(1) and (2), (4) through (9)), prior to ocean disposal, the Navy must remove "to the maximum extent practicable all materials which may degrade the marine environment, including without limitation...(ii) removing from the hulls...pollutants

and all readily detachable material capable of creating debris or contributing to chemical pollution" (40 C.F.R. 229.3(a)(3)).

15. Under Section 10 of the Rivers and Harbors Appropriation Act of 1899, the Secretary of the Army (herein referred to as the Secretary) has authority to issue a permit for the creation of an artificial reef (33 U.S.C. 403). Section 205 of the National Fishing Enhancement Act of 1984 directs the Secretary, in issuing permits for artificial reefs under 33 U.S.C. 403, to consult with and consider the views of appropriate Federal agencies, States, local governments, and other interested parties (33 U.S.C. 2104(a)(1)). Also under the National Fishing Enhancement Act, before issuing a permit relating to the siting, design, construction, operation, maintenance, monitoring, or managing of an artificial reef under Section 402 of the Clean Water Act, 33 U.S.C. 1342, the EPA Administrator is required to consult with the Secretary to ensure that such permit is consistent with any permit issued by the Secretary (33 U.S.C. 2104(b)(2)).

16. Wire cabling aboard naval vessels contains PCBs at a concentration of less than 500 ppm. The total weight of the PCBs in wire cables on Navy vessels is estimated to be from a few ounces to a few pounds. Complete removal of the wire cable prior to ocean sinking of a vessel as a training target, weapons test platform, or artificial reef is impracticable since, in many places, the wire cable is inaccessible or impossible to remove without diminishing the structural stability of the vessel.

17. The Navy is organized, trained, and equipped primarily for safe operation of its ships and prompt and sustained combat incident to operations at sea. It is responsible for the preparation of naval forces necessary for the effective prosecution of war (10 U.S.C. 5062). Inherent in this function is the requirement to keep naval vessels at readiness levels capable of responding to emergent conditions. Vessels retained at Inactive Ship Maintenance Sites, at naval shipyards, or with the Maritime Administration are kept for purposes of ready response or to meet other military needs of the United States. Chief of Naval Operations Instruction (OPNAVINST) 4770.5E, "General Instructions for Inactive Ships and Craft," dated May 31, 1983.

18. Under the Arms Export Control Act, 22 U.S.C. 2751 et seq., the Navy transfers vessels by sale or lease to foreign navies if such transfers will strengthen the security of the United States.

19. Under the Federal Property and Administrative Services Act of 1949 (40 U.S.C. 484(i)), the Maritime Administration (MARAD) is responsible for the disposal of vessels of merchant design and over 1500 tons.

20. Under 10 U.S.C. 7308, the Navy donates vessels to State governments and nonprofit organizations for use as museums, memorials, artificial reefs, or continued service use.

21. Use of the existing felt in shipboard applications on naval vessels does not pose significant exposure risks to personnel on board the vessels. Air sampling from ventilation systems known to use PCB felt has shown that PCBs are not emitted from the ventilation systems, nor have activated charcoal filters in use for many months accumulated detectable PCB residues; thus, there is no detectable airborne PCB contamination from the use of PCB felt. The likelihood of dermal contact with PCBs is considered minimal due to the location and configuration of items using the felt. They are in out-of-the way spaces with which ship personnel have very little, if any, contact. Hull damping treatments are covered by interior plates. Felt used as gaskets has extremely limited exposed surfaces. Moreover, Navy and contractor personnel are trained to recognize the potential PCB felt and to take appropriate precautions if they must handle it.

22. PCBs on board vessels in the fleet do not pose exposure risks to the public or the environment. Public access to naval vessels is highly controlled, and materials containing PCBs covered in this compliance plan are not accessible. The Navy has conducted tests, confirmed by harbor studies, which show that there is minimal danger that PCBs in felt aboard naval vessels will leach into the marine environment.

23. While the precise number of vessels containing felt or the number of ventilation gaskets or other felt applications on board those vessels is not presently known, an extensive records search has identified the likely presence of felt on over 200 ships and submarines built, repaired, or converted after 1948. In many cases, the review identified the presence of the felt but could not ascertain whether the installed felt was from the specific supplier who used PCBs. Surveying the fleet to determine a more precise count is impracticable because many of the felt applications, particularly in ventilation gaskets or as hull damping material, are located in spaces with extremely limited accessibility.

24. A dedicated effort to effect immediate and complete removal and cleanup of all of the felt is impossible in the fleet because it would be prohibitively time-consuming and costly. In addition to incurring costs for removing the felt and disposing of it, many vessels would require extensive restoration once the felt was removed. Any effort to remove all felt from the fleet would divert strategic resources as well as funds needed for more pressing environmental problems and would interfere with the Navy's ability to maintain a ready naval force in support of the defense of the United States.

25. The removal of felt and the cleanup of any resulting contamination can be reasonably effected in those areas where work on a vessel requires the disturbance of a site at which felt is located. Felt at the site on which work is taking place can be removed in conjunction with this work and the site mitigated or cleaned up in accordance with the standards set in this compliance plan without unnecessarily delaying vessel deployment. The cost of removal and mitigation or cleanup at this time is also commensurate with the benefits achieved.

#### IV.

##### SCOPE

26. This compliance plan applies to the use and disposal of: (1) PCB-impregnated felt material, applications of which include, but are not limited to, acoustical damping material on submarines, gaskets in the joints of ventilation ducts, faying or insulating material between dissimilar metals on all ships, and machinery mount insulation; (2) PCB-impregnated wire cable systems; and (3) cleanup procedures for residual PCBs on vessels in the Navy's fleet. If the Navy discovers additional uses of PCBs that are not presently known on board vessels, the compliance plan will be appropriately modified to apply to the use and disposal of those PCB items. This compliance plan addresses all requirements of TSCA, the PCB Regulations at 40 C.F.R. Part 761, MPRSA, and the Ocean Dumping Regulations at 40 C.F.R. Subchapter H. The compliance plan also addresses steps the Navy will take respecting the transfer of its vessels to foreign countries for national security and foreign relations purposes and transfer of vessels to state and local government and nonprofit organizations for use as memorials, museums and artificial reefs to ensure that any PCBs remaining on board at the time of transfer will be managed and disposed of in an environmentally sound manner and consistent with EPA-approved methods.

#### V.

##### BEST MANAGEMENT PRACTICES

27. PCBs in the applications described in the preceding paragraph on board any vessel in the fleet will remain in place until the subject vessel is scrapped, provided, however, that if other requirements such as vessel repairs, alteration, maintenance, conversion or the like compel opening or disturbing an application on any vessel, or if there is any evidence of PCB contamination that has spread from such application on any vessel, that application shall be removed, the item disposed of in accordance with 40 C.F.R. 761.60, and the resulting

contamination shall be mitigated or cleaned up in accordance with one of the following methods:

a. Encapsulation: Two coats of an EPA-approved coating will be applied to cover the surface that had been in contact with the removed PCB item as well as an area extending six inches on all sides surrounding that surface. The first coat and second coat shall be of different colors to assure the use of two coats and to mark the location of encapsulated surfaces. The final reassembled site will be repainted in accordance with other Navy requirements.

b. Cleaning: Surfaces adjacent to the removed PCB item as well as an area extending six inches on all sides surrounding that surface will be cleaned using kerosene or an EPA-approved solvent and in accordance with a double wash/rinse process as described in 40 C.F.R. 761.123.

c. Encapsulation/cleaning shall be to 100 ug/100 cm<sup>2</sup>.

28. If a site has been encapsulated in accordance with the provisions of paragraph 27.a., above, it shall be considered stabilized and will not be further decontaminated unless there is evidence of method failure. Encapsulated areas will be properly marked for future reference.

29. Routine maintenance of ventilation ducts which does not require disturbance of PCB felt flanges shall be accomplished by:

a. Training all maintenance personnel in maintenance procedures applicable to all ventilation ducts including recognition of potentially contaminated felt flanges, cleaning methods, and disposal requirements.

b. Cleaning ducts with brushes or portable vent duct cleaning machines and disposing of resultant dirt or debris in accordance with PCB disposal requirements at 40 C.F.R. 761.60, unless tested and found not to contain PCBs in concentrations greater than 50 ppm.

c. Employing the procedures outlined in paragraph 27 above if removal, maintenance or alteration of gasket material is required.

30. If a site has been cleaned in accordance with the provisions of paragraph 27.b., above, it shall be considered decontaminated and require no further special handling under the PCB Regulation, 40 C.F.R. Part 761.

31. Sampling/testing for surfaces treated as described in paragraph 27 above will be prescribed for quality assurance purposes in numbers according to a statistically valid random sampling protocol approved by EPA.

## VI.

### FUTURE DISPOSAL

32. Any PCBs remaining on a vessel at the time of the vessel's scrapping will be disposed of in accordance with the storage and disposal requirements of 40 C.F.R. Part 761. In particular, felt will be removed prior to or in conjunction with the scrapping of a vessel for metals and parts and disposed of in accordance with the disposal procedures outlined in 40 C.F.R. 761.60. If felt is stored prior to disposal, it shall be stored in accordance with storage procedures outlined in 40 C.F.R. 761.65. The remainder of the vessel shall be disposed of in accordance with the requirements of the PCB Regulations, 40 C.F.R. Part 761, or as otherwise approved by EPA. With regard to work performed under contracts for scrap or stripping, the Navy will identify known PCB items and potential PCB items to bidders and require the contractor to meet these same requirements.

## VII.

### PAST DISPOSAL

33. The Navy will make a good faith effort to identify the locations where felt was not disposed of in accordance with TSCA and the PCB Regulations, since their implementation, by public and private shipyards working on Navy vessels and to notify the responsible parties.

## VIII.

### QUALITY ASSURANCE

34. The Navy shall conduct all sample preservation, chain-of-custody record-keeping, and quality assurance/quality control ("QA/QC") procedures in accordance with EPA guidance documents and shall follow the disposal procedures outlined in 40 C.F.R. 761.60 and the storage procedures outlined in 40 C.F.R. 761.65 for PCB items designated as waste.

## IX.

### SINKING EXERCISES/OCEAN DISPOSAL

35. In order to ensure operational readiness, the Navy conducts training and weapons test exercises resulting in the sinking of vessels (SINKEX) pursuant to the general permit found at 40 C.F.R. 229.2. In addition, from time to time the Navy sinks vessels for the purpose of disposal in the ocean pursuant to the general permit found at 40 C.F.R. 229.3. Prior to such actions, the Navy will conduct a survey of such vessels to ascertain the presence of PCBs in the applications described in paragraph 26, above. Prior to sinking a vessel, the Navy will remove PCB items with the exception of wire cables, felt gasket material that is bonded in a bolted flange, and other applications deemed impracticable to remove. Prior to sinking such vessels, the Navy will confirm that the planned actions are sufficient to comply with the requirements of 40 C.F.R. 229.2 and 229.3. PCBs removed from the vessel shall be disposed of in accordance with the disposal requirements in the PCB Regulations, 40 C.F.R. 761.60.

## X.

### TRANSFERS OF VESSELS TO FOREIGN COUNTRIES

36. If the Navy sells or leases a naval vessel to a foreign government for military and foreign policy objectives pursuant to the Arms Export Control Act, the Navy will conduct a survey of the subject vessel prior to transfer. If PCBs are found, the Navy will inform the prospective receiving government and will require that PCBs on board the vessel be managed and disposed of in accordance with EPA-approved methods or methods of equal stringency.

## XI.

### TRANSFER OF VESSELS TO NONPROFIT ORGANIZATIONS

37. If the Navy donates a vessel to a state or a nonprofit organization for continued service use or use as a museum, memorial, or artificial reef, the Navy will conduct a survey of the subject vessel prior to transfer. If PCBs are found, the Navy will inform the prospective recipient and shall make such transfer contingent upon the recipient's obtaining written concurrence from EPA that the vessel can be used for its intended purpose.

XII.

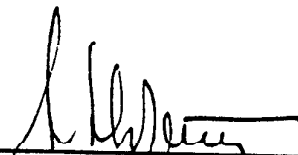
FUNDING

38. Nothing in this compliance plan shall be construed to require the Navy to violate the Anti-Deficiency Act. Although the Navy has not budgeted funds specifically for the purpose of compliance with the PCB management and disposal practices stated in this compliance plan, the Navy anticipates meeting these requirements in the near term using funds from other congressionally-authorized programs within the limits of the Navy's authority. Future budget requests shall take the requirements of this compliance plan into account in order to meet the most expeditious schedule of compliance possible in accordance with Sections 1-4 and 1-5 of E.O. 12088 as implemented by Office of Management and Budget Circular A-106 (as amended).

XIII.

EXPIRATION

41. This compliance plan will expire when its objectives have been achieved.

  
\_\_\_\_\_  
(Navy Signatory)

Date: \_\_\_\_\_

Approved:

\_\_\_\_\_  
(EPA Signatory)

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DEPARTMENT OF THE NAVY

OFFICE OF THE ASSISTANT SECRETARY  
(INSTALLATIONS AND ENVIRONMENT)  
WASHINGTON, D.C. 20360-5000

17 April 1995

ORIGINAL

919 pages  
Selected pages plus core letters  
U.S. Environmental Protection Agency  
Office of Pollution Prevention and Toxics  
TSCA Nonconfidential Information Center, Rm E-G99  
Attn: TSCA Docket Receipts (7407)  
401 M Street, S.W.  
Washington, D.C. 20460

Re: Disposal of Polychlorinated Biphenyls, Notice of  
Proposed Rulemaking, 59 Fed. Reg. 62788 (6 Dec 94)

Dear Sir or Madame:

Enclosed are comments from the Department of the Navy on the proposed rule for disposal of Polychlorinated Biphenyls (PCBs). The Navy's submission consists of twenty-two comments and eighteen enclosures that reflect Navy concerns. Both the comments and enclosures are indexed.

The proposed rule will have significant impacts on Navy vessels, facilities and operations. The comprehensive controls proposed by EPA will impact nearly every shipboard maintenance action and add significant costs. We estimate the costs for the first year to be approximately \$1,150 million dollars for new labeling and sampling requirements, management and disposal of PCB materials, and removal of concrete pads under transformers at shore facilities. Annual costs for each year thereafter, are estimated at approximately \$563 million for new use conditions and PCB management and disposal during maintenance. The continued use, management and disposal requirements will also impact shore facility maintenance, but we have not estimated that cost.

Our comments address the technical basis for the new rule and propose technically supported alternatives. If adopted, our proposals would significantly reduce or even eliminate the cost impact and provide adequate protection health and the environment as required by the Toxic Substances Control Act.



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APR 20 1995

If you have any questions, my point of contact is  
Ms. Karen M. Foskey at (703)602-2859.

*Elsie L. Munsell*

ELSIE L. MUNSELL  
Deputy Assistant Secretary of the Navy  
(Environment and Safety)

Enclosure: Consolidated Navy Comments on Disposal of  
Polychlorinated Biphenyls, Notice of Proposed Rulemaking,  
59 Fed. Reg. 62788 dated 6 Dec 94 (3 Copies)

Copy to:  
ADUSD (EQ)

INDEX TO COMMENTS

1. Continued Use of PCBs in Service Before 1979. (Proposed Rule Section §761.30(q) and Preamble Paragraph II.D.2.c)
2. Continued Use of PCBs in Service After 1979. (Proposed Rule Section §761.30(q) and Preamble Paragraph II.D.2.c)
3. Leachability-Based Option for Disposal of Non-remediation Waste. (Proposed Rule Section §761.62(b) and Preamble Paragraph II.A.6)
4. Exports in Commerce of PCBs. (Proposed Rule Section §761.20(b)(5) and Preamble Paragraph II.D.3.h)
5. Transboundary Shipments of PCBs Owned by the U.S. Government. (Proposed Rule Section §761.20(b)(6))
6. Cleanup of PCBs Disposed of Before 1978. (Proposed Rule Section §761.60 and Preamble Paragraph II.A.2)
7. Change to the Definition of Concrete from Non-Porous to Porous Surface. (Proposed Rule Section §761.3 and Preamble Paragraph II.A.4.d.i)
8. Disposal of Scrap Metal with PCB-Contaminated Non-liquid Surface Contamination. (Proposed rule Section 761.60(a)(6)(iii))
9. "Coordinated Approval" for Actions Involving Other Rules. (Proposed Rule Section §761.77 and Preamble Paragraphs III.K.1. and II(k)(1)(a))
10. Pre-authorized Option for Decontamination of Non-Porous Surfaces. (Proposed rule Section §761.79 (e) and (f) and Preamble Paragraph II.A.7)
11. Application of Restrictions on Storage of PCB Articles to National Defense Mobilization Assets. (Proposed Rule Section §761.67(a))
12. Sampling of Materials in Vessels Prior to Performance of Maintenance. (Proposed Rule Section §761.62 and Appendix III)

13. Expansion of PCB Transformer and PCB Contaminated Electrical Equipment Rules to Small Transformers. (Proposed Rule Section §761.3 and Preamble Paragraph III.C)
14. Risk-Based Option for Disposal of Non-remediation Waste. (Proposed Rule Section §761.62(c) and Preamble Paragraph II.A.6)
15. Disposal of Waste Generated During the Chemical Analysis of PCBs. (Proposed Rule Section §761.64 and Preamble Paragraph II.D.3.g)
16. Registration Requirements for PCB Transformers Containing greater than or equal to 500 ppm. (Proposed Rule Section §761.30(a)(1)(vii) and Preamble Paragraph III.P)
17. Ownership of Wastes Following Sale of Products. (Preamble to the Proposed Rule, Paragraph IV(A)(3))
18. Standard for Decontamination of PCB Spills on Surfaces. (Proposed Rule Section §761.79(d))
19. Marking of Capacitors. (Proposed Rule Section §761.3 and §761.40 and Preamble Paragraph III.A)
20. Cleanup of Old PCB Spills Based on PCB Concentration in Waste (Anti-dilution Rule). (Proposed Rule Section §761.61(a) and Preamble Paragraph II.A.4.d.i)
21. PCB Concentration Standard for Cleanup of Liquids. (Proposed Rule Section §761.79(h) and Preamble Paragraph II.A.7.)
22. General Navy Comments

- Encl: (1) CNO letter Ser 451C/1U600138 dated 7 Aug 1991  
(2) CNO letter Ser 451C/1U599820 dated 1 Apr 1991  
(3) CNO letter Ser 00T/326 dated 26 Apr 1991  
(4) Westinghouse MTD Report WMTD1002192 dated 24 Feb 95 Subj: Cost Impact of proposed continued Use Conditions For PRE-TSCA PCB Materials  
(5) Westinghouse MTD Report WN950452 dated March 6 1995 Subj: Leachability and Surface Concentration of PCB Containing Materials  
(6) Carderock Division, Naval Surface Warfare Center, Philadelphia, PA Report Ser 6224/95 dated 8 April 1993, Subj: Evaluation of Duct Cleaning Machine [potential for disturbance of PCB wool felt gasket materials]  
(7) Naval Research Laboratory 6110-639:JRW:bmd dated 9 Nov 1989, Sub: PCB Analysis of Charcoal Samples  
(8) Naval Research Laboratory, Washington, DC Report Ser 6110/349 dated 20 June 1989, Subj: Submarine Air Sampling PCB Analysis  
(9) Puget Sound Naval Shipyard Letter, Ser 106/146 to Naval Sea Systems Command dated 9 Oct 1992, Subj: PCB Air Sampling Final Report  
(10) Naval Hospital, Bremerton, Ser 061.2A1/02272 dated 2 May 94 to Puget Sound Naval Shipyard  
(11) Naval Research Laboratory Report Ser 6110/121 dated 19 April 1993, Subj: Sampling and Analysis of PCBs in Navy Ship Cables  
(12) Norfolk Naval Shipyard Laboratory Division, Report No. 94NN06305 dated 30 Sep 94  
(13) "PCBs in Oil Base Paint & Solvents at The San Francisco Hazardous Waste Collection Facility", presentation by Mr. Tom Walkins, Facility Supervisor/Chemist, City of San Francisco Sanitary Fill Company  
(14) Naval Sea Systems Command Letter, OPR:00L/518 dated 16 Nov 1993, to US EPA (Attn: Dr. John Smith), Subj: TCLP Results From Ship's Electrical Cables, EX-USS Carver (EX-SSBN 656)  
(15) Westinghouse MTD Report WN 950398 dated 24 Feb 1995 Subj: PCB Transformer Clean Up Removal Cost Estimate  
(16) "Pore Structure and Permeability," N. Hearn, R. Hooton, and R. Mills, 1994 Chapter 25 Significance of Tests and Properties of Concrete and Concrete-making Materials, Klieger and Lamond, 1994,  
(17) Structure and Physical Properties of Hardened Portland Cement Paste, T. Powers, Journal of the American Ceramic Society, Jan 1, 1958.

U.S. Navy Comments on Proposed PCB Rule  
Document Control Number OPPTS-66009A; FRL-4167-1

- (18) NAVSEA Memorandum Ser 00T/036 dated 07 March 1995  
Sub: Calculation of an Exposure Scenario

1. Continued Use of PCBs in Service Before 1979. (Proposed Rule Section §761.30(q) and Preamble Paragraph II.D.2.c)

PROPOSAL: The EPA has proposed to authorize the use and distribution in commerce of non-liquid materials containing any concentration of PCBs in use prior to July 2, 1979 provided these materials remain intact and in place in their existing application and location for the remainder of their useful life. Several use conditions apply including historical documentation, prompt written notification upon discovery of new uses, marking of the materials, providing exposure information to workers, performing air and surface wipe monitoring, and record keeping. Materials which pass the TCLP test, discussed elsewhere in these comments, would be excluded from a majority of the use conditions except marking and making exposure information available to workers. The discussion which follows addresses the Navy concerns regarding the proposed use conditions of §761.30(q) for such materials. Comment 2 below discusses the Navy concerns regarding materials produced and/or placed in service on or after July 2, 1979.

DISCUSSION: Enclosures (1), (2), and (3) are documents previously provided to EPA to evidence that PCBs can exist in nearly all forms of non-metallic materials used onboard ships, that removal of such materials is not possible, and that new uses are frequently encountered. Therefore, the Navy agrees that authorization for continued use, with suitable controls, is the only practical approach. The Navy also agrees that materials which pass the TCLP test should be subject to only limited controls directly correlated to risk posed. Our comment 3 notes that, in the Navy's view, there is little need for special controls on materials passing the TCLP test during maintenance operations. Our comment 12 discusses the need for a process to obtain EPA approval of sampling procedures to identify such materials and recommends rule language that would provide the needed avenue.

However, the Navy finds the remaining use conditions proposed in §761.30(q)(1) to be unsupported by the technical data at hand. These concerns are discussed in detail below and a recommended alternative approach is proposed.

1. Continued Use of PCBs in Service Before 1979. (Proposed Rule Section §761.30(q) and Preamble Paragraph II.D.2.c) (continued)

a) Notification.

The rule would require EPA to be notified within 30 days of the effective date of the rule the location of all previously unauthorized uses of PCB materials, a description of the use, an estimate of the amount in use, the PCB concentration in the material, the expected useful life of the material, the condition of the material and evidence of historical uses of the material. The rule would also require notification of EPA within 24 hours of the discovery of an air or wipe sample in excess of the proposed limit.

This 30-day requirement would be impossible for the Navy or most industrial facilities to meet. On March 21, 1995, EPA observed a review of the Navy's program to aggressively identify and establish appropriate controls for PCB contaminated materials. As noted during this review, new uses continue to be discovered. The Navy is confident that all have not yet been found. Furthermore, despite the large amount of information the Navy possesses, the Navy does not have all of the information required by EPA. For instance, with our recent discovery of PCBs in certain kinds of paint used in Navy ships, the report, at the required detail, would have to include information for about 1800 vessels on the Navy Vessel Register. For vessels not on the register and for all of our shore facilities, still more data, tests, reports and administrative work would be required. The Navy estimates that the reporting requirements would consume the full time efforts of at least 10 workers. The cost for this effort would therefore exceed \$1,000,000 per year.

All but one of the materials discovered in recent years are rubber, plastic or plastic-like materials which pass the leachability test and therefore pose no significant hazard to people or the environment. The exception is PCB-felt, first reported in 1989. Therefore, notification for materials that do not leach will not serve any significant public health or safety concern.

Navy comment 9 discusses the Navy concerns regarding the relationship between TSCA and other statutes. The proposed notification requirements appear to conflict with the limitations in TSCA as discussed in comment 9. Additionally, regarding the 24-hour notification, TSCA,

1. Continued Use of PCBs in Service Before 1979. (Proposed Rule Section §761.30(q) and Preamble Paragraph II.D.2.c) (continued)

RCRA, and CERCLA set the reportable quantity (RQ) for spills of PCBs at one pound of pure PCBs. This requirement is related to the significance of the release of this amount of PCBs. There is no correlation between an elevated airborne or surface PCB discovery and the RQ. Indeed, the amounts involved in exceeding the use conditions are minute fractions of a gram. Additionally, for Navy vessels at sea, the report would be very difficult to make.

b) Marking.

The marking requirement is also impractical to implement. The Navy has found PCBs in ventilation felt gaskets, countless rubber products, adhesives, electrical cables, tape, paint and insulation of many kinds. These materials are used throughout most of these vessels. Requiring that each PCB containing material be marked in accordance with the rule will be impractical. In addition, PCB markings will interfere with the existing safety warnings, egress, battle conditions and route markings required by the Navy's military mission.

The Navy estimates that, if implemented, marking would cost at least \$74,500,000 aside from the unacceptable impact on mission. See enclosure (4) for details of this estimate.

The Navy has a routine method for notifying operators of vessels of all health, safety and operational requirements for proper operation and maintenance of systems and equipment aboard relating to PCBs. The Navy accomplishes this through the Naval Sea Systems Command's Fleet advisory system. PCB advisories are distributed throughout the Fleet to provide proper notification. These advisories are considered by the Navy to provide adequate notice. Therefore, additional labeling is not required.

c) Air Monitoring.

From the Navy's TCLP data, the Navy finds that many materials would be exempt from the air monitoring requirement. However, the felt material (enclosure (5)) would not be exempt and would subject many Navy vessels, and presumably shore facilities, to the air monitoring requirement. The following is submitted to support the Navy's conclusion that airborne releases of PCBs are not of

1. Continued Use of PCBs in Service Before 1979. (Proposed Rule Section §761.30(q) and Preamble Paragraph II.D.2.c) (continued)

concern for Navy ships, including those with large amounts of PCB felt aboard;

1. Enclosure (6) details a study performed by the Naval Surface Warfare Center, Philadelphia to determine the impact of aggressive ventilation duct cleaning procedures on PCB wool felt gasketing material. The study revealed that there were no airborne emissions of PCBs above current limits even during this aggressive cleaning.

2. Enclosures (7) and (8) are Naval Research Laboratory reports regarding the analysis of charcoal air scrubbing filters from some older submarines. The filter media filters the entire volume of the submarine approximately 43 times per day, and the filter media is replaced typically every 21 days. This filter analysis represents a worst case scenario for the Navy since the charcoal is being operated in a closed boat environment and our older submarines have known applications of PCBs onboard including the felt application. These filters were analyzed by GC/MS for the presence of PCBs and none were detected.

3. Enclosure (9) is a Puget Sound Naval Shipyard report that demonstrated that storage of vessel hull sections cleaned to less than 100 ug/100cm<sup>2</sup> does not present an unreasonable risk to personnel by inhalation of PCBs. The average airborne PCB concentration was 0.43 ug/m<sup>3</sup>, using the NIOSH method for collection and analysis. NIOSH recommended exposure limit of PCBs in air is 1 ug/m<sup>3</sup>.

4. Enclosure (10) is a summary of a Naval Hospital, Bremerton letter forwarding the results of their air sampling and analysis report conducted at Puget Sound Naval Shipyard. Air samples were taken during various PCB cleanup procedures and areas where no work involving PCBs was occurring. The report found that air onboard an active submarine, where all known sources of PCBs were in use and no PCB related work was occurring, had PCB levels of less than 0.00005 mg/m<sup>3</sup>.

Should the air monitoring requirement be imposed, there will be a significant cost. For only those Navy vessels on the Naval Vessel Register, the Navy estimates that the air requirement will cost over \$298,000,000 in the first year, and over \$74,000,000 annually thereafter. See enclosure (4) for details. To include shore facilities and vessels not on

1. Continued Use of PCBs in Service Before 1979. (Proposed Rule Section §761.30(q) and Preamble Paragraph II.D.2.c) (continued)  
the register, the cost will be several times higher.

The air sampling and airborne PCB action level specified at proposed §761.30(q)(iii) is not in accordance with the specified sampling method. It requires sampling at a rate of 1 L/min for 480 continuous minutes. This requirement would imply a sample volume of 480L. The maximum flow rate in accordance with NIOSH Method 5503 is 0.2 L/min with a maximum volume of 50 L/sample. To perform the sampling in strict compliance with the NIOSH method would require 10 samples (plus two blanks) for each area sampled. Additionally the NIOSH method, when performed properly has a working range of 0.01 to 10 mg/m<sup>3</sup> which is 10 times higher than the proposed EPA action level of 0.001 mg/m<sup>3</sup>.

The airborne action level proposed by EPA (the NIOSH recommended limit of 0.001 mg/m<sup>3</sup>) is 500 times lower than the OSHA limit, and 250 times lower than the OSHA action level. The Navy knows of no technical basis to impose such a low limit.

d) Wipe Sampling.

As discussed above, from our TCLP data we find that many materials would be exempt from the wipe sampling requirement. However, the felt material does not pass this test (enclosure (5)) and would subject many Navy vessels, and presumably shore facilities, to the requirement for wipe sampling. Based on the following information, the requirement does not appear necessary.

1. Enclosure (5) also provides surface wipe data from painted surfaces on some Navy vessels. The results indicate that all the surfaces sampled showed PCB levels less than 100 ug/100cm<sup>2</sup>. The highest PCB concentration paint sampled was 10,000 ppm which resulted in a wipe sample of less than 5.0 ug/100cm<sup>2</sup>. The results indicate that the PCBs contained in the paint remain bound in the paint matrix and are not released to the surface.

2. Enclosure (11) provides detailed wipe sampling information from a variety of electrical shipboard cables. This report shows that barring an outside source of surface contamination (i.e. a spillage of a PCB containing liquid, or seepage from a felt installation) there is no surface contamination issue associated with these materials.

1. Continued Use of PCBs in Service Before 1979. (Proposed Rule Section §761.30(q) and Preamble Paragraph II.D.2.c) (continued)

3. The dominant use of PCBs in past years has been in large electrical transformers. EPA has never required surface wipe sampling as a condition for continued use for PCBs in this service. In view of the fluidity of PCB transformer oils and the large volume present, such devices have a much greater potential for release through leakage than the solid PCB felt material in use in Navy systems.

4. In some instances, a viscous fluid can ooze from felt gaskets that become heated. In these circumstances, the material makes a visible mark on the surfaces beyond the immediate application. Testing is unnecessary to reveal the problem.

The wipe sampling requirement also has a significant financial impact. The Navy estimates that the wipe sample requirement just for Navy vessels on the Naval Vessel Register will cost over \$154,000,000 in the first year, and approximately over \$45,000,000 annually thereafter. See enclosure (4) for details. Furthermore, for operating ships, testing services are not available.

e) Remedial Action.

The rule requires remedial action within twenty-four hours of an air or surface wipe reading over the EPA action levels.

The only currently known material that would be subject to this requirement is PCB felt. This material is most often used in obscure areas of ships which are not subject to frequent contact. Although the Navy would anticipate prompt correction of a release from felt, there is little or no relationship between time since discovery and the risk of exposure in the Navy environment.

RECOMMENDATION: To resolve many problems noted above, the Navy recommends that the following use conditions be incorporated into the final rule:

1. Continued Use of PCBs in Service Before 1979. (Proposed Rule Section §761.30(q) and Preamble Paragraph II.D.2.c) (continued)

§761.3

(q) "Other Uses of PCBs. Non-liquids that contain PCBs at any concentration (including, but not limited to, gaskets, plastics, plasticizers, fluorescent light ballast potting material, electrical cable (except oil-filled cable as described in paragraph (m) of this section,) dried paints, small rubber parts, roofing and siding materials, insulation, caulking, waterproofing compounds, ceiling tile coating, and adhesive tape) are authorized for use and distribution in commerce provided they remain intact and in place in their existing application and location for the remainder of their useful life, subject to the conditions in paragraph (q) (1) unless they are removed for disposal.

"(1) Use Conditions. (i) The owner or operator of such PCB-containing material shall:

(A) Provide to the EPA all available information on the types and quantity of material installed in the owner's facilities as it becomes available.

(B) Make available to any potentially exposed employee or upon request, to any other potentially exposed individual, information concerning the identity of the PCBs and any health risk associated therewith.

(C) Clean exudate from or encapsulate on surfaces to less than 100 ug/100 cm<sup>2</sup> for restricted access areas and less than 10 ug/100 cm<sup>2</sup> for non-restricted access areas.

(ii) The PCB containing material shall remain intact and properly maintained for the remainder of its useful life.

(iii) When removed from service the PCB containing material must be disposed of according to this rule.

(iv) Any visible leakage of the PCB containing material shall be contained or disposed of in accordance with this rule.

"(3) Non-liquid materials, other than those authorized for continued use under paragraph (q) (2) (household waste), that contain PCBs at any concentration but which leach PCBs at less than 50 ug PCB/L as measured by the TCLP, 40 CFR part 261, Appendix II, Method 1311, are authorized for continued use and are not subject to the use requirements of paragraph (q) of this section. These materials, once removed from service, may be disposed of as non-PCB waste."

2. Continued Use of PCBs in Service After 1979. (Proposed Rule Section §761.30(q) and Preamble Paragraph II.D.2.c)

PROPOSAL: The proposed rule would authorize the use and distribution in commerce of non-liquid materials containing any concentration of PCBs in use prior to July 2, 1979 but does not authorize or address use of materials containing PCBs placed in service after July 2, 1979.

DISCUSSION: While the Navy understands TSCA's requirement to prohibit the use of PCBs, the fact remains that PCB materials continue to be discovered in products manufactured after 1979. The Navy cannot accept continuing uncertainty regarding materials purchased and/or placed in service after July 2, 1979. As noted in enclosures (1), (2) and (3), EPA has been previously informed that the Navy has encountered PCBs in an enormous variety of common commercial products. They have also been found in military applications even though there is only one known instance where military specifications called out a requirement for PCBs (Navy Formula 184 anti-fouling compound, used on certain Naval mines).

PCBs that are known to be included in products well after July 2, 1979 abound. For instance, many electrical cables, marked with the date of manufacture as late as 1985 have PCBs above 50 ppm. See enclosure (12). The Navy has found PCBs in automobile fan belts. Furthermore, PCBs in paint were found by the city of San Francisco's Hazardous Waste Collection Facility personnel, see enclosure (13). Also, many Navy materials are purchased in advance of their installation and may have been placed in service after July 2, 1979. The Navy has no way of knowing all instances in which PCBs might be found.

The risks to the environment and circumstances associated with the use of post July 2, 1979 materials are identical to those associated with pre-July 2, 1979 materials discussed at length in comment 1 above.

RECOMMENDATION: The Navy requests that EPA address the issue of items containing PCBs manufactured after July 2, 1979 and authorize their continued use. The recommended rule change of Comment 1 above would, from the Navy standpoint, adequately authorize such materials.

3. **Leachability-Based Option for Disposal of Non-remediation Waste.** (Proposed Rule Section §761.62(b) and Preamble Paragraph II.A.6)

PROPOSAL: Section §761.62(b) of the proposed rule reads in part "...PCB non-remediation waste shall be disposed of: *Leachability-based disposal.* (1) In a facility permitted, licensed, or registered by a State as a municipal or industrial solid waste landfill if the concentration of PCBs in a representative sample of the PCB non-remediation waste is less than 50 ug PCB/L as measured by the Toxicity Characteristic Leaching Procedure (TCLP), 40 CFR part 261, Appendix II, Method 1311..."

DISCUSSION: The Navy agrees that the leachability-based option, which permits PCB wastes that pass the TCLP test to be disposed of in municipal landfills, will reduce our disposal cost and properly recognizes the minimal or non-existent risk to the environment posed by these materials. However, the Navy also believes that additional flexibility for management of these wastes prior to disposal is also of appropriate.

The data discussed below reveals that many of the wastes the Navy deals with would pass the TCLP test and could under the proposed rules be disposed of in a municipal waste landfill. The proposed rule would still require the handling, manifesting, and storage and transportation of such materials prior to disposal as PCB waste. A large fraction of the cost of compliance comes from these elements of current rules. For example, the total cost to manage PCB materials during the recycling of vessels at one Navy facility averages 11 % of the total recycling cost or about \$4,000,000 per vessel. The proposed change for disposal in municipal landfills would reduce these costs by about \$1,200,000 per vessel.

However, Resource Conservation and Recovery Act (RCRA) rules at 40 CFR part 261 et. seq., on which the leachability test is patterned, do not require ordinary solid waste materials that pass leachability tests to be handled, manifested, or stored as hazardous waste. The proposal has paralleled only a portion of the RCRA rules. It should be expanded to include all.

The new rule would also require prior notification of landfill operators in advance of disposal. This is also not found in RCRA rules. An approach consistent with RCRA and the risk posed would further reduce our costs.

3. Leachability-Based Option for Disposal of Non-remediation Waste. (Proposed Rule Section §761.62 (b) and Preamble Paragraph II.A.6) (continued)

The Navy is submitting enclosures (5) and (14) as evidence that, for the materials tested, PCB leaching does not pose a significant risk to health or the environment. These materials represent the bulk of non-liquid non-remediation wastes encountered during Navy ship maintenance and disposal.

Enclosure (5) provides TCLP results for shipboard PCB contaminated rubbers, ensolite, electrical cable and ventilation felt. All of these materials except for ventilation felt was found to leach less than 50 ppb, measured using EPA method 1311.

Enclosure (14) provides results from three shipboard electrical cable samples containing < 50 ppm, < 500 ppm and > 500 ppm PCBs. The results concluded that the leachate concentration of PCBs or biphenyl products were found to be < 1 ug PCB/L.

RECOMMENDATION: To reduce requirements for special handling, manifesting, storage and transportation of materials which pass the TCLP test, the Navy recommends the following rule language:

1) §761.62 (5) (new section)" PCB non-remediation waste found to leach less than 50 ug PCB/L, as measured by Toxicity Characteristic Leachate Procedure (TCLP), 40 CFR part 261, Appendix II, Method 1311 method, shall not be subject to the handling, manifesting, and storage and transportation requirements for PCB Wastes which are contained in this rule."

2) The EPA should delete the written notification requirement at §761.62(b)(3) for landfill disposal of non-remediation waste found to leach less than 50 ug PCB/L.

4. Exports in Commerce of PCBs. (Proposed Rule Section §761.20(b)(5) and Preamble Paragraph II.D.3.h)

PROPOSAL: Section §761.2(b)(5) of the proposed rule reads:  
"No person may export PCBs or PCB Items for purposes of disposal except that:

(i) PCBs at concentrations less than 50 ppm may be exported for disposal.

(ii) EPA may allow the export for disposal of PCBs at concentrations of 50 ppm or greater to countries with which the United States has an international agreement consistent with the international obligations of the United States relating to transboundary movement of PCBs and their disposal. Such exports would be allowed on a case-by case basis unless EPA has reason to believe that the PCBs in question will not be properly managed,.....")

DISCUSSION: The proposed rule has some apparently typographical errors in §§761.20(b)(5) and 761.20(c)(3). The two sections both discuss the export of PCBs for disposal, with only minor variations in the language (i.e., that at §761.20(b)(5) is more consistent with the language of the Basel Convention). From the discussion in the Preamble, it appears that EPA intended §761.20(b) to cover imports of PCBs for disposal.

Exports Generally. These comments are principally pertinent to §761.20(c)(3), regarding the export of PCBs. The Navy supports authorizing the export for disposal of PCB items of greater than 50 ppm, but believes that the stringent conditions imposed on such exports effectively undermine the authority so as to render it unavailable.

The first condition is that the export be to a country with which the United States has an international agreement. The Navy requests clarification as to why the language that refers to an international agreement in §761.20(b)(5)(ii) is different from that in §761.20(c)(3)(ii). The (b)(5) language appears to be based on the Basel Convention, while the (c)(3) language is more general. The Navy also requests clarification as to whether, if the United States were to become a party to the Basel Convention, EPA would regard the Convention as an agreement referred to in these two sections. Does the United States have any agreements at present that qualify under §761.20(c)(3)(ii)?

The remaining conditions concern the information the exporter must provide with the petition to EPA for approval of the proposed export. Once this information is provided, "EPA will review and evaluate petitions and may request

4. Exports in Commerce of PCBs. (Proposed Rule Section  
§761.20(b)(5) and Preamble Paragraph II.D.3.h)  
(Continued)

further information from the petitioner to assess the proposed exception adequately. ... EPA will inform the petitioner in writing of its decision." The Navy has the following comments regarding the conditions imposed on proposed PCB exports for disposal:

a. Generally, international agreements regarding the transboundary movement of hazardous wastes include notification procedures. Export in compliance with those procedures should be adequate for informing both the country of export and the country of import. (See, for example, the Basel Convention, Article 6 (Transboundary Movement between Parties) and Annex V A (Information to be Provided on Notification).) Further, the requirement that the petition include a certification from the receiving country that it has received accurate and complete information regarding the waste is unworkable and should be deleted. It is difficult to obtain a certification from any government on any topic, let alone a certification as to knowledge regarding hazardous waste the government of the importing country has not inspected.

b. The proposed rule should state the basis upon which EPA will make decisions so that petitioners are on notice of the factors EPA will consider in granting petitions and to avoid unnecessary litigative expense and delays while the disposal/export community discerns the pertinent elements. Also, petitions should not be limited to an individual basis. In instances in which the information about one article would be nearly identical to that for similar articles, the rule should provide for a class-type petition.

c. The rule should also state the time limit within which EPA will make its decision on the petition so that business decisions can be made in a timely fashion and the petition process does not extend beyond the time in which the petitioner could reasonably be expected to wait, keeping its workforce, financing arrangements, and subcontractors on hold. The absence of a time-frame for the decision is a serious flaw because of the unpredictability of when a decision will be made, the likelihood of decisions held in abeyance because of other EPA workload, and the disruption to the disposal/export community caused by the inability to make definite plans.

4. Exports in Commerce of PCBs. (Proposed Rule Section  
§761.20(b)(5) and Preamble Paragraph II.D.3.h)  
(Continued)

d. As an alternative to a time limit for EPA's decision, the proposed rule should be self-implementing, so that EPA is spared the administrative burden of reviewing petitions which, if they comply with the requirements of §761.20(c)(3), should be granted as a matter of course. This could be accomplished by modifying the proposed rule to say that a petition for export of PCBs for disposal would be deemed approved unless EPA provides written notice to the petitioner within a stated period of time (perhaps 30 working days, because that would provide adequate time to review the submission for completeness).

Scrap Metal/Vessel Exports. In the Preamble, EPA notes that the export of vessels for salvage might be approved under this rule if PCBs found in large capacitors, transformers, and hydraulic or heat transfer fluids were removed prior to export. Although the Navy supports easing up on the restrictions EPA has imposed on the export of vessels that may contain some PCB items, we question whether such exports should be grouped with other exports of PCBs for disposal. Such vessels are not exported for purposes of disposing of the small amount of PCBs they contain but for purposes of selling the salvageable metal and reclaimable parts.

The Navy has worked closely with other federal agencies, including EPA, on the Administration's "principles" for legislation implementing the Basel Convention. We believe EPA's proposed rule is inconsistent with these principles, which would have such legislation exempt scrap metal from any general prohibition on exports.

This position was adopted by the interagency group because scrap metal was considered a low-hazard recyclable and it would avoid a disruption or loss of overseas recycling markets (we do not have environmental bilateral or multilateral agreements covering scrap metal exports to the likely, non-Organization for Economic Cooperation and Development (OECD), receiving countries nor could we rapidly put such agreements in place). The U.S. capacity to recycle scrap metal is insufficient, and the trade is important to key industry groups, which export approximately 12 million tons of scrap metal for recycling annually. Over 70 % of the scrap metal exports for recycling go to non-OECD countries, where scrap metal is a valuable source of raw materials for

4. Exports in Commerce of PCBs. (Proposed Rule Section  
§761.20(b)(5) and Preamble Paragraph II.D.3.h)  
(Continued)

developing countries. Although scrap recycling has some potential to harm worker health or cause environmental damage, the alternative (mining, processing and smelting virgin ores) causes significant occupational and environmental impacts.

The proposed rule also undermines the position the U.S. Government has taken with regard to any movement by the Basel parties to ban the export of scrap metal from OECD to non-OECD countries.

The Navy recognizes that, even with regard to scrap metal, EPA could find that certain sources represent such an environmental hazard as to require special protection. We do not believe scrap metal from military and commercial vessels, however, is a source that requires this special protection. The Navy believes that, after the removal of large PCB capacitors and transformers, old vessels with small quantities of PCBs in cables, gaskets, rubber products, and other similar items (most of which could be landfilled in the United States) do not warrant export controls.

The Navy also recommends that EPA permit the export in commerce of industrial equipment with limited amounts of PCBs, such as vessels, for reuse. United States owners may find the continued use of a vessel uneconomical before the vessel requires scrapping. The benefits to the global environment of permitting the continued use of the vessel would outweigh any costs. Also, these sales and the sale of scrap metal contribute to a more favorable balance of trade for the United States. We understand that they form the principal basis of the Maritime Administration's support for the domestic merchant marine as well.

If EPA treats exports of vessels for metal salvage and parts reclamation as an export of PCBs, the following comments pertain:

a. For purposes of providing adequate information regarding large items, such as vessels, to the country of import, the petitioner should be required to survey the article it proposes to export and provide a copy of all data it has about the hazardous substances on that article to the appropriate official in the receiving country.

4. Exports in Commerce of PCBs. (Proposed Rule Section  
§761.20(b)(5) and Preamble Paragraph II.D.3.h)  
(Continued)

Certification that every hazardous substance has been identified, by either the proposed exporter or the importer, would be impossible to provide but the proposed exporter should be able to certify that he has complied with the requirements to survey the article and provide relevant information with his notification.

b. The Navy recommends that, when information about one vessel is indicative of information about other vessels of that specific class, or when information can be grouped because articles are sold as a group in order to obtain a buyer for the less-attractive articles in the group (in terms of salvage value), then the exporter should be permitted to submit a class petition.

RECOMMENDATIONS: The Navy has the following recommendations for rule language:

1) §761.20(c)(3)(ii) - "EPA may allow the export for disposal of PCBs at concentrations of 50 ppm or greater to countries with which the United States has a bilateral or multilateral agreement concerning the transboundary movement of hazardous waste as long as the agreement is consistent with existing domestic law and any international obligations of the United States. Such exports will be allowed on a case-by-case basis at EPA's initiative or in response to a petition submitted in accordance with this paragraph. Any person may file a petition. Petitions shall be submitted to the Director, Chemical Management Division (7404), 401 M St., SW, Washington, DC 20460. Petitions must be submitted on an individual basis for each generator or individual requesting authority to export PCBs for disposal. Each petition shall contain the following information:

(A) Name, address, and telephone number of petitioner.

(B) Description of the export for disposal exception requested, including items to be exported and disposal facility.

(C) Current locations of PCBs to be exported and of each proposed disposal site.

(D) Length of time requested for the exception.

4. Exports in Commerce of PCBs. (Proposed Rule Section  
§761.20(b)(5) and Preamble Paragraph II.D.3.h)  
(Continued)

(E) Amount of PCB chemical substance or PCB mixture (by pounds and/or volume) to be exported and disposed of during requested exception period. Identification by the exporter of any liquid PCBs or PCB-containing electrical equipment to be exported.

(F) Copy of the international agreement under which the export is authorized.

(G) Certification that the export will conform to all notification and consent requirements of such international agreement. If the agreement does not require notification to the Government of the country of import, the petitioner shall provide documentation that receiving country has been advised of the proposed shipment.

Each generator or individual requesting authority to export PCBs may submit petitions on a class-type basis if the information in the petition is valid for similar members of the class of articles to be exported or if the articles will be sold and exported as a group and the petition contains complete information for all articles in the group. Petitions will be deemed approved by EPA thirty working days after they are received by the Director, Chemical Management Division, unless EPA provides notice in writing within that thirty calendar day period to the petitioner, either requesting further, specific information or identifying reasons why EPA determines the export would constitute an unreasonable risk to the environment of the United States. Denial of a petition is a final agency action."

2) §761.20(c)(3)(iii) (new subsection) "Materials with non-liquid PCBs at any concentration present within white goods and industrial equipment, including vessels and other transportation equipment, may be exported for metal recovery and parts reclamation if such materials are an integral part of the exported item. Integral parts of an exported item are those parts that are installed or applied to support the operation or use of the white goods or industrial equipment. All PCB transformers, large capacitors, hydraulic and heat transfer fluids must be removed from such items prior to their export for metal recovery and parts reclamation.

4. Exports in Commerce of PCBs. (Proposed Rule Section  
§761.20(b)(5) and Preamble Paragraph II.D.3.h)  
(Continued)

3) §761.20(c)(3)(iv) (new subsection)- "Industrial equipment, including vessels and other transportation equipment, may be exported in commerce for continued use regardless of the presence of PCB materials that are an integral part of the exported item, subject to large capacitors, PCB transformers, hydraulic and heat transfer fluids being removed. Integral parts of an exported item are those parts that are installed or applied to support the operation or use of the industrial equipment."

If EPA drops §761.20(b)(5) in favor of §761.20(c)(3), it should be careful not to lose §761.20(b)(6).

5. **Transboundary Shipments of PCBs Owned by the U.S. Government (Proposed Rule Section §761.20(b)(6))**

PROPOSAL: Section §761.20(b)(6) of the proposed rule states in part: "For purposes of this regulation, the following transboundary shipments will not be considered exports and imports...

(ii) PCBs that were procured domestically by the United States Government, taken overseas for use by the United States Government, and that have remained under United States Government control since the time of procurement (including any residuals resulting from the cleanup of spills of such waste during use, storage, or in transit)."

DISCUSSION: The Navy is unable to identify the origin of PCBs in many non-metallic materials. Navy vessels routinely transit ports around the world and these vessels often need to procure items in various foreign countries and from foreign sources. In addition, Naval facilities overseas also procure materials from foreign sources which may or may not contain PCBs. The Navy has no control over foreign Government's environmental regulations, controls, or materials contained therein. A distinction should not be made based on the country of origin, because it has no bearing on any potential risk to the environment and serves only to complicate and add to the administrative burden with no offsetting benefit. Therefore, a modification is necessary to permit the Navy to return items that may have been obtained overseas due to the fact that the Navy can not distinguish the origin of potentially PCB contaminated items.

RECOMMENDATION: The Navy recommends that the word "domestically" be deleted from the §761.20(b)(6)(ii) and the word "taken" be changed to "used". The following rule language would then read as follows;

§761.20(b)(6)(ii) - "PCBs that were procured by the United States Government, used overseas by the United States Government, and that have remained under United States Government control since the time of procurement (including any residuals resulting from cleanup of spills of such wastes during use, storage, or in transit)."

6. Cleanup of PCBs Disposed of Before 1978. (Proposed Rule Section §761.60 and Preamble Paragraph II.A.2)

PROPOSAL: Section §761.60 of the proposed rule reads: "PCBs disposed of...prior to April 18, 1978, will be presumed to be disposed of in a manner that does not present a risk of exposure...unless a Regional Administrator makes a finding that such a disposal...presents a risk... The Regional Administrator may then require the submission of an application for a risk-based disposal approval under §761.61 or §761.62."

DISCUSSION: The Navy questions EPA's authority to require the cleanup of pre-TSCA PCB spills in this manner. It appears that under TSCA, only section 7 offers a possible basis for compelling cleanup of pre-TSCA releases and this section appears to limit the Administrator's avenue to a civil action in an appropriate district court of the United States either for seizure of the material, or other relief or both.

Even this authority is not clear. Under section 9(b) of TSCA, the Administrator is to coordinate TSCA actions with actions taken under other Federal laws administered in whole or in part by the Administrator. This would include the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Only if the Administrator determines, for example, that action under CERCLA is insufficient is section 7 of TSCA available and as noted above, the avenue is very restrictive.

The Navy understands the intent of EPA with this proposal is to find relief from the very strained past judicial interpretation of the statute that concluded that such PCB wastes were still "in service." Nonetheless, the avenue to addressing the issue under TSCA appears inadequate to support the proposed approach.

Procedural concerns aside, the Navy has no technical objection to the concept of requiring risk-based cleanup of old spills in circumstances where historical spills of PCBs have not yet been addressed. However, as noted in comment 7 below, we believe the authority could lead to extraordinary cost for cleanup of concrete surfaces which were cleaned under the old rules. Even if the rules were to dismiss an application in this case, as the technical evidence would indicate is likely, parties such as the Navy would incur significant cost in reaching that determination.

6. Cleanup of PCBs Disposed of Before 1978. (Proposed  
Rule Section §761.60 and Preamble Paragraph  
II.A.2) (Continued)

RECOMMENDATION: The Navy recommends that EPA reconsider the proposal to require risk-based remediation of pre-1978 PCB spill and if found unsupported, that all after "...does not require further disposal" be struck from the proposed section §761.6.

7. Change to the Definition of Concrete from Non-Porous to Porous Surface. (Proposed Rule Section §761.3 and Preamble Paragraph II.A.4.d.i)

PROPOSAL: The proposed rule at §761.3 would change the existing definition of concrete as a non-porous surface to defining it as a porous surface. Paragraph II.A.4.d.i of the Preamble explains: "In this proposal, concrete is not considered a non-porous surface as it is in Subpart G. Consequently, concrete containing PCBs would have to be removed rather than just wiped off."

DISCUSSION: The Navy notes that the proposed change in the definition of concrete from non-porous to porous will have a very significant impact on Navy compliance costs with little environmental gain. Enclosure (15) details the cost impacts which are summarized below:

1) During the past 15 years, the Navy has eliminated over 4,000 shore electrical transformers containing PCBs and has an equal number left to do. In most circumstances, when the PCBs or PCB-transformers were removed, the Navy cleaned or sealed the preexisting concrete supporting pads or surfaces to the current requirements. The proposed change to the definition of concrete will require the Navy to replace the concrete supports for the remaining transformers. The cost for this work averages about \$24,000 for each transformer pad and would therefore increase the cost of the current Navy PCB elimination program for transformers by about \$100,000,000.

2) As noted above, the Navy has already eliminated PCBs from about 4000 shore electrical transformers. The proposed change to the definition of concrete, coupled with the proposed change in §761.6 regarding past releases of PCBs (discussed in comment 6) could cause the Navy to undertake replacement of concrete structures under the previously remediated transformers. The cost for this work would also be approximately \$24,000 per transformer; an additional total cost of \$100,000,000.

3) Under current rules, nearly all spills can be managed without shutting down adjacent or nearby equipment. However, if concrete removal is required, shutdown is likely to be required in most circumstances. This can lead to very high costs. For example, shutting down a substation serving a ship overhaul to replace the concrete footing can force suspension of the overhaul at a cost of about \$500,000 per day for each day of delay. This is in addition to the added cost of concrete replacement.

7. Change to the Definition of Concrete from Non-Porous to Porous Surface. (Proposed Rule Section §761.3 and Preamble Paragraph II.A.4.d.i) (continued)

4) EPA includes in the definition of non-porous surfaces marble and granite; however, several research studies reveal that concrete material permeability is on the same order of magnitude compared to marble and granite. The studies are contained in enclosures (16) and (17).

Apparently for practical reasons, the proposed rule does not change the definition of concrete when it is used in PCB storage facilities. Such a change would, in all likelihood, place a majority of storage facilities out of compliance and require a major rebuilding program. In view of the high cost involved in the change in the definition of concrete, the Navy considers that the same practical considerations should be applied to prior uses of concrete for supporting machinery which once used PCBs.

In conclusion, the proposed change to the definition of concrete from non-porous to porous could cost the Navy over \$200,000,000.

RECOMMENDATION: The Navy recommends the following rule language to modify the definition of non-porous surface to specifically include concrete as a non-porous surface;

§761.3 " Non-porous surface means a smooth, unpainted solid surface that limits penetration of liquid PCBs beyond the immediate surface. Examples are: concrete, smooth uncorroded metal; smooth glass, smooth glazed ceramics; impermeable polished building stone such as marble or granite; and high density plastics that do not absorb organic solvents such as polycarbonates and melamines."

The Navy would also support changes that allow concrete in all existing applications but prohibits it in future applications where spills of PCBs may be encountered, such as new PCB storage facilities.

8. Disposal of Scrap Metal with PCB-Contaminated Non-liquid Surface Contamination. (Proposed rule Section 761.60(a)(6)(iii))

PROPOSAL: Section §761.60(a)(6)(iii) of the proposed rule reads: "PCB Contaminated Articles which are not in contact with liquid PCBs, such as non-porous surfaces including, but not limited to, ship and submarine hulls, air handling systems and other articles which can be characterized by a standard wipe test, as defined in §761.123, may be disposed of in a facility permitted, licensed or registered by a State to manage municipal or industrial solid waste (excluding thermal treatment units), an industrial furnace operating in compliance with the requirements of paragraph (a)(4) of this section, or other disposal facility approved under this part."

DISCUSSION: The Navy understands that this proposal would allow the Navy to remelt scrap steel coated with paint, adhesives or other such material provided the materials contain less than 500 ppm PCBs, provided the industrial furnace or smelter is operating within the stated conditions in proposed section §761.60(a)(4). The Navy also understands that the proposed provision does not require that non-remediation waste contaminated to less than 500 ppm be wipe sampled.

COMMENT: The Navy strongly supports this disposal method and recommends that it be adopted in the final rule. The Navy estimates that this disposal alternative will save the U.S. Government approximately \$8,000,000 per year in disposal costs for submarine recycling operations alone.

**PCBs IN UNITED STATES NAVY VESSELS**

USS CABOT /  
DEDALO

**USS CABOT/DEDALO Museum Foundation, et al**  
**v. United States Customs Service, et al**

1995 U.S. Dist. LEXIS 4068 printed in FULL format.

USS CABOT/DEDALO MUSEUM FOUNDATION, ET AL VERSUS UNITED STATES CUSTOMS  
SERVICE, ET AL

CIVIL ACTION NO. 94-2277 C/W 94-3631 SECTION "D" (3)

UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF LOUISIANA

1995 U.S. Dist. LEXIS 4068; 41 ERC (BNA) 1020

March 29, 1995, Decided

March 30, 1995, FILED, ENTERED

PRIOR HISTORY: [\*1] Reconsideration Denied April 26, 1995, Reported at: 1995 U.S. Dist. LEXIS 5580.

COUNSEL: For USS CABOT/DEDALDO MUSEUM FOUNDATION, VESSEL USS CABOT/DELDALO, THE, plaintiffs: George Davidson Fagan, Leake & Andersson, New Orleans, LA.

For UNITED STATES CUSTOMS SERVICE, Department of the Treasury, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, defendants: John S. Gregory, Michael J. Zevenbergen, U. S. Dept. of Justice, Environmental & Natural Resources Div, Washington, DC.

JUDGES: A. J. McNamara, UNITED STATES DISTRICT JUDGE

OPINIONBY: A. J. McNamara

OPINION: ORDER AND REASONS

Before the court are:

(1) the Application for Injunctive Relief and Alternative Complaint for Declaratory Judgment filed by The USS Cabot/Dedalo Museum Foundation, Inc. ("Foundation") and the Vessel M/V CABOT/DEDALO ("Vessel") [No. 94-2277]; and

(2) the cross-Motion for Preliminary Injunction or, Alternatively, Permanent Injunction filed by the United States Customs Service ("Customs"), the United States Department of Treasury, and the United States Environmental Protection Agency ("EPA") (collectively, "United States") [No. 94-3631].

The matters have been extensively briefed and are be-

fore the court on the briefs, without oral argument. The Foundation seeks injunctive relief to export the Vessel in its present condition to India. On the other hand, the Government seeks injunctive relief to prevent the export of the Vessel until polychlorinated biphenyls (PCBs) and PCB items n1 at concentrations greater of 50 ppm or greater are properly removed from the Vessel.

n1 PCB and PCBs means any chemical substance that is limited to the biphenyl molecule that has been chlorinated to varying degrees or any combination of substances which contains such substance. 40 C.F.R. § 761.3.

PCB Item is defined as any PCB Article, PCB Article Container, or PCB Equipment, that deliberately or unintentionally contains or has a part of it any PCB or PCBs. 40 C.F.R. § 761.3.

[\*2]

Now, having considered the memoranda of counsel, the evidence attached thereto, and the applicable law, the court finds that the Foundation's intended export of the Vessel in its present condition would violate the Toxic Substances Control Act ("TSCA"), 15 U.S.C. §§ 2605(e), 2611(a)(2), 2614, and TSCA's implementing regulations codified at 40 C.F.R. § 761 et seq., all relating to the proper export and disposal of PCBs. Thus, the court will grant the Government's Motion for Permanent Injunction.n2

n2 15 U.S.C. § 2616(a) expressly authorizes injunctive relief to abate violations of TSCA.

I. Facts



LEXIS-NEXIS

A member of the Reed Elsevier plc group



LEXIS-NEXIS

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LEXIS-NEXIS

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The subject of these cross-pleadings for injunctive relief is the ex-USS CABOT, a former aircraft carrier originally commissioned in 1943 and then decommissioned and acquired by the Spanish Government in 1972. The Vessel was renamed the SNS DEDALO and remained under flag commission of the Royal Spanish Navy until July 1989 when it was transferred to the Foundation, a non-profit Louisiana corporation. [\*3] The Foundation was originally supposed to convert the Vessel into a permanent museum, but due to alleged financial difficulties, the Foundation is now attempting to export the Vessel "for sale to a third party for ultimate delivery and use in India for the purpose of reusing all of the metals, materials, equipment and components on or forming part of the Vessel." (See the Foundation's First Amended Application for Injunctive Relief and Alternative Complaint for Declaratory Judgment, Para. 2).n3

n3 In its original application for a temporary restraining order, the Foundation stated that it

desired[d] to export the Vessel for sale . . . for ultimate delivery and disposal by demolition of the Vessel in the Republic of India. . .

(See TRO App., p. 3, Para. 7 (emphasis added)).

In support of its amended position that the Vessel will be "reused" rather than "demolished", the Foundation submitted the Affidavit of Mr. Ravi Arya, the managing partner of Goyal Traders, who testified in part [\*4] that:

5. His job duties and responsibilities include but are not limited to: Vessel purchasing from overseas markets for the purpose of reuse, recycling and/or reclaiming of materials in the Republic of India through the scrapping process; Identifies (sic) markets in the Republic of India for reuse, recycling or reclaiming metals, materials, equipment and components on or forming part of any type of vessel; Sells metals, materials, equipment, components and etc., to Republic of India buyers for reuse, recycling and or/reclaiming in commercial and industrial applications.

...

7. Goyal Traders desires to import the Vessel for the purpose of reusing, recycling and/or reclaiming all of the metals, materials, equipment and components on or forming part of the Vessel.

The EPA learned of the Foundation's possible export

of the Vessel and contacted Customs requesting that the Vessel not be given clearance to leave port n4 until the absence of polychlorinated biphenyls (PCBs) at concentrations of 50 parts per million (ppm) or greater had been documented. Customs agreed to do so.

n4 The Vessel is presently berthed at the Press Street Wharf on the Mississippi River in the Parish of New Orleans.

[\*5]

The Foundation ultimately hired Environmental Analysts, Inc. ("EAI") to analyze 56 samples taken from the Vessel. EAI's results either showed no concentrations of PCBs at concentrations of 50 ppm or greater or were inconclusive. However, EPA tested duplicates of 5 of these 56 samples and found PCBs at concentrations of 50 ppm or greater in one of the samples tested.

EPA therefore informed the Foundation that a comprehensive Environmental Assessment ("EA") was required. The Foundation then filed its original application for a temporary restraining order which would have effectively allowed the vessel to leave port without further testing.

Both the Foundation and the United States subsequently agreed to postpone hearing on the Foundation's original TRO application so that the EPA's laboratory could analyze other duplicate samples from the vessel. The Foundation provided EPA with the remaining 51 duplicate samples taken from the vessel. EPA analyzed 8 samples identified as electrical cable. These 8 samples were separated into their individual components (i.e., paint, paper, plastic, black material around copper wire, copper wire casing, black outer covering (casing), grey outer covering. [\*6] gummy material, plastic wrap, etc.). Analysis of these components revealed that most of the samples contained concentrations of PCBs in excess of 50 ppm, the regulatory limitation under the Toxic Substances Control Act ("TSCA"). In fact, most of the samples tested by the EPA contained PCBs far above 50 ppm--one of the highest levels being 122,000 ppm. (See Doc. No. 10, United States' Exhibit C, Declaration of Michael Daggett and Attachment #2).

The parties were unable to amicably resolve the matter and asked this court to intervene. While the court was considering the parties' briefs related to the Foundation's Application for Injunctive Relief (No. 94-2277), the United States filed its own Complaint for Injunctive Relief (No. 94-3631). The court consolidated both matters and expedited the briefing of the United States' Complaint for Injunctive Relief so that a simultaneous



ruling could be made. However, the briefing dates were ultimately extended to allow the United States to conduct additional testing on the Vessel.

On December 14 and 15, 1994, an inspection of the Vessel was conducted by one EPA Environmental Engineer and two EPA Environmental Scientists. The inspection team [\*7] found that the Vessel was secured and that many doors and hatches were bolted shut, making many portions of the Vessel inaccessible to inspection. Of the 12 samples collected during the inspection, only one sample, taken from a spill of oil on the floor of a "Mooring/Windlass Room," contained PCBs at a concentration over 50 ppm. This particular sample was analyzed to have a PCB content 275 ppm. (See Gov.'s brief, Doc.No. 18, Ex. 9, Joint Declaration, Para. 6(k)).n5

n5 The inspection team states that this spill, on the floor of a "Mooring/Windlass Room," appeared to have settled on the floor from the action of rain through a possible ceiling leak. (See Doc.No. 18, Ex. 9, Joint Declaration, Para. 6(1)). However, the court cannot determine from the Government's papers what the source of this spill is and the Foundation has also failed to identify it.

"The inspection team determined that the taking of wipe samples from many surfaces, including electrical cable, would not be appropriate as all surfaces [\*8] were heavily laden with paint. In general, all exposed surfaces, including cabling had been painted repeatedly over the years and the mesh jackets over the cable were sealed in paint." Id.

## II. Legal Analysis

The Toxic Substances Control Act ("TSCA"), 15 U.S.C. §§ 2605(e), 2611(a)(2), and 2614 and the regulations (40 C.F.R. § 761 et seq.) promulgated thereunder n6 prohibit the export for disposal of items containing PCBs in concentrations of 50 ppm or greater.n7 And there is no genuine dispute that the vessel contains PCBs at concentrations of 50 ppm or greater, both in component parts of electrical cable and in the oil spill on the floor on the Mooring/Windlass Room.

n6 Section 6(e) of TSCA, 15 U.S.C. § 2605(e), inter alia, requires the Administrator of EPA to promulgate rules to prescribe methods for the disposal of PCBs and authorizes the Administrator to promulgate rules governing the manufacture, processing, distribution in commerce, and use of PCBs.

n7 See also 45 Fed. Reg. 29,115 in which the EPA announced, on May 1, 1980, the expiration of the "Open Border Policy" which had opened the border to PCB imports and exports for disposal for eleven months from May 31, 1979. Therein the EPA created the "Closed Border Policy" prohibiting the import or export of PCBs for disposal. The Federal Register notice explained that the

EPA is concerned that the improper disposal of PCBs will pose a threat to health or the environment. . . . The success of an Open Border Policy is dependent on the availability of acceptable disposal facilities in other nations. The experience of the last year has demonstrated that an extension of the Open Border Policy would be inappropriate because most other nations do not have proper disposal facilities.

45 Fed. Reg. at 29,115.

In July 1984, the EPA opened the border in a limited way, allowing PCBs in concentrations less than 50 ppm to be imported or exported for purposes of disposal. 49 Fed.Reg. 28,190; 40 C.F.R. § 761.20(b)(2). However, there is no statutory or regulatory authority allowing PCBs in concentrations of 50 ppm or greater to be imported or exported for purposes of disposal.

[\*9]

The Foundation basically concedes that the oil spill in the Mooring/Windlass Room must be cleaned up before the Vessel can be exported. (See Foundation's brief, Doc. No. 19, pp. 2, 20). However, contrary to the Government's position, the Foundation argues that (if the oil spill is cleaned up) the following language of 40 C.F.R. 761.20 (c)(1) authorizes the export of the Vessel notwithstanding the high concentration of PCBs in the electrical cable:

PCBs at concentrations of 50 ppm or greater, or PCB Items with PCB concentrations of 50 ppm or greater, sold before July 1, 1979 for purposes other than resale may be distributed in commerce n8 only in a totally enclosed manner n9 after that date.

n8 Distribute in commerce and Distribution in Commerce when used to describe an action taken with respect to a chemical substance, mixture, or article containing a substance or mixture means to sell, or the sale of, the substance, mixture, or article in commerce; to introduce or deliver for introduction into commerce. or the introduction or delivery for



introduction into commerce of the substance, mixture, or article; or to hold or the holding of, the substance, mixture, or article after its introduction into commerce. 40 C.F.R. § 761.3

[\*10]

n9 Totally enclosed manner means any manner that will ensure no exposure of human beings or the environment to any concentration of PCBs. 40 C.F.R. § 761.3

While the court agrees that the electrical components and other items at issue were sold before July 1, 1979, the court concludes that 40 C.F.R. § 761.20 (c)(1) is inapplicable here because this section requires that the PCB items must be now sold for "reuse" or "continued use" and the Foundation has not so convinced the court. In its PCB Q & A Manual (attached as Exhibit A to the Foundation's brief, Doc. No. 9), the Environmental Protection Agency (EPA) interprets 40 C.F.R. § 761.20 (c)(1), as it relates to the distribution in commerce of circuit breakers, reclosers and cable, as follows:

**DISTRIBUTION IN COMMERCE (Sale of Circuit Breakers, Reclosers, and Cable)**

The distribution in commerce of PCBs, 50 ppm or greater, for use in circuit breakers, reclosers, and cable is prohibited without an EPA exemption [761.20 (c)]. However, PCBs at concentrations less than 50 ppm may be distributed in commerce for [\*11] use in circuit breakers, reclosers, and cable (under specific conditions) in accordance with the definition of "Excluded PCB Products" [761.3]. Also, PCBs at any concentration may be distributed in commerce for purpose of disposal n10 [761.20 (c)(2)]. Disposal, means the termination of the useful life of the PCB or PCB-contaminated circuit breaker, recloser, or cable.n11

The distribution in commerce (sale) of circuit breakers, reclosers, and cable which already contain PCBs in concentrations of 50 ppm or greater for purposes of reuse is allowed provided:

- \* the unit was originally sold for use before July 1, 1979;
- \* the unit is intact and nonleaking at the time of sale; and
- \* no PCBs are introduced into the unit.

Q1: Does this mean I can sell a PCB or PCB-contaminated circuit breaker, recloser, or cable?

A1: Yes. If the equipment was originally sold for use before July 1, 1979, and is now being sold for reuse (i.e., continued use).n12

Also, the unit must be intact and nonleaking. EPA recommends that the buyer be advised that he is purchasing a PCB or PCB-contaminated unit.

Q2: What does intact and nonleaking mean?

A2: Intact and [\*12] nonleaking means that the equipment is structurally sound with all fluid intact and there are no PCBs on the surface of the equipment.

(See PCB Q & A Manual, p. VI-2; see also similar provisions for transformers at p. I-4, capacitors at II-4, and electromagnets, switches and voltage regulators at p. V-2).n13

n10 Disposal of PCB items must be made in accordance with the requirements of § 761.60.

n11 "Disposal" is similarly defined in § 761.3 as follows:

Disposal means intentionally or accidentally to discard, throw away, or otherwise complete or terminate the useful life of PCBs and PCB items. Disposal includes spills, leaks, and other uncontrolled discharges of PCBs as well as actions related to containing, transporting, destroying, degrading, decontaminating, or confining PCBs and PCB items.

n12 The EPA also defines "reuse" as "continued use" at I-30 (re: distribution in commerce of railroad transformers) and V-2 (re: distribution in commerce of electromagnets, switches and voltage regulators) in the EPA's PCB Q & A Manual, which is attached as Exhibit A to the Foundation's brief, Doc.No. 9).

[\*13]

n13 The court gives considerable weight to the EPA's construction of TSCA and its administrative interpretation of this 40 C.F.R. § 761.20 (c)(1). *Chevron. U.S.A., Inc. v. Natural Resources Defense*, 467 U.S. 837, 104 S. Ct. 2778, 2781-82, 81 L.Ed.2d 694 (1984).

While Plaintiffs have offered the Affidavit of Mr. Arya as proof that the Vessel will be exported for "reuse," the court is unpersuaded as Mr. Arya not only fails to acknowledge that "reuse" means "continued use," he also claims that Goyal Traders will use the Vessel



for purposes of "reusing, recycling and/or reclaiming" parts of the Vessel through the "scrapping" process. The court concludes that "recycling and reclaiming" through the "scrapping" process are more akin to disposal and the termination of the useful life of the PCBs rather than "continued use" of the PCBs.<sup>n14</sup>

<sup>n14</sup> In finding that 40 C.F.R. § 761.20 (c)(1) is inapplicable because there has been an insufficient showing that the PCB Items will be reused within the meaning of this regulation, the court need not decide whether the non-liquid-filled electrical cable on board the vessel is "intact and nonleaking" and "totally enclosed" within the meaning of TSCA and this regulation. However, the court notes that the paint samples taken from the eight electrical cables analyzed by the EPA contained PCBs as high as 605 ppm. (See Gov.'s brief, Doc. No. 10, Exhibit C, Attachment #2).

[\*14]

Thus, the court concludes that the Foundation's intended export of the Vessel in its present condition would thwart the legislative purpose of TSCA and GRANTS the Government's Motion for Permanent Injunction.<sup>n15</sup> Since the court is ruling on the merits, the court finds it unnecessary to apply the traditional equitable standards associated with a ruling for a "preliminary" injunction.<sup>n16</sup> Nevertheless, the court also concludes that the evidence fully supports issuance of a permanent injunction under the traditional equitable standards.

<sup>n15</sup> 15 U.S.C. § 2616(a) expressly authorizes injunctive relief to abate violations of TSCA.

<sup>n16</sup> To succeed on an application for a preliminary injunction, the applicant must demonstrate by a clear showing:

- (1) a substantial likelihood of prevailing on the merits;
- (2) a substantial threat of irreparable harm if the injunction is not granted;
- (3) that the threatened injury outweighs any harm that may result from the injunction to the nonmovant; and
- (4) that the injunction will not undermine public interests.

*Roho, Inc. v. Marquis*, 902 F.2d 356, 358 (5th Cir. 1990).

When, as the case here, an injunction is expressly authorized by statute and the statutory conditions are satisfied, the usual prerequisite of irreparable injury (factor 2 above) need not be established. *EEOC v. Cosmair, Inc.*, 821 F.2d 1085, 1090 (5th Cir. 1987); *South Central Bell Tel. Co. v. Louisiana Public Service Commission*, 744 F.2d 1107, 1120 (5th Cir. 1984).

Nevertheless, "environmental injury, by its nature, can seldom be adequately remedied by money damages and is often permanent or of long duration, i.e., irreparable." *Amoco Prod. Co. v. Village of Gambell*, 480 U.S. 531, 545, 107 S. Ct. 1396, 1404, 94 L.Ed.2d 542 (1987).

[\*15]

In essence, the court finds that the Government has not only met its burden of showing that the Foundation's proposed export violates TSCA, but the Government has also met its burden of showing that the Foundation's proposed export of the Vessel threatens public health and the environment, that this threat is sufficiently likely and outweighs any potential harm to the Foundation (i.e., the inability of the Foundation to export the Vessel), and that the public interest would be furthered by the granting of the injunction. Under TSCA, Congress has charged the courts and the EPA with the responsibility to protect public health and the environment from the risks associated with the manufacturing, processing, storage and disposal of PCBs. And to permit the Foundation to export the Vessel in its present condition without properly removing the PCBs, PCB items, and PCB spills, at concentrations of 50 ppm or greater, would thwart Congress' explicit purpose in enacting TSCA.

Accordingly;

IT IS ORDERED that the Application for Injunctive Relief, filed by the Foundation be and is hereby DENIED.

IT IS FURTHER ORDERED that the Cross-Motion for Permanent Injunction filed by the United States [\*16] be and is hereby GRANTED, enjoining the export of the ex-USS Cabot/Dedalo in its current condition, containing PCBs at concentrations of 50 ppm or greater, until both (1) PCBs, PCB items, and PCB spills, at concentrations of 50 ppm or greater, have been properly removed from the Vessel, and (2) the court has issued an Order, after a contradictory hearing, finding that export of the Vessel is not prohibited by TSCA.

The court retains jurisdiction of this matter for any further determinations concerning the future legality of exportation of this Vessel as it pertains to compliance



with TSCA.

New Orleans, Louisiana, this 29 day of March, 1995.

A. J. McNamara

UNITED STATES DISTRICT JUDGE



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